

AD/A-006 923

SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS.  
INDONESIAN COASTAL MARINE AREAS. VOLUME I.  
AREA 1 - SOUTHEAST SUMATRA. AREA 2 - CHRISTMAS ISLAND.  
AREA 3 - SUNDA STRAIT. AREA 4 - NORTHWEST JAVA SEA.  
AREA 5 - BANGKA ISLAND NORTHWEST.  
AREA 6 - NATUNA ISLAND. AREA 7 - SARAWAK

Naval Weather Service Command  
Washington, D. C.

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# U. S. NAVAL WEATHER SERVICE COMMAND

## SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS INDONESIAN COASTAL MARINE AREAS

### VOLUME 1

AREA 1 - SOUTHEAST SUMATRA

AREA 2 - CHRISTMAS ISLAND

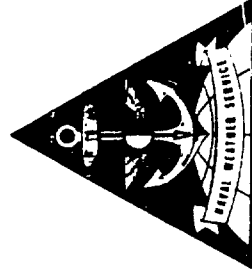
AREA 3 - SUNDA STRAIT

AREA 4 - NORTHWEST JAVA SEA

AREA 5 - BANGKA ISLAND NORTHWEST

AREA 6 - NATUNA ISLAND

AREA 7 - SARAWAK



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## SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (MONTHLY AND ANNUAL)

The data contained in these tables were obtained from tape data Family 11 (TDF-11), Marine Surface observations. TDF-11 was primarily funded by the Naval Weather Service Command and selected by NWSO Asheville as the most comprehensive collection of marine surface observations from which to develop a series of coastal marine summaries. The source was punched cards of weather observations taken aboard vessels of varying registry. They were recorded on magnetic tape in a common format. Elements not in WMO code were converted to this code where possible. Where this was not possible, the original data were retained within the tape record as supplemental data. A very limited quality control was attempted as the punched cards were converted to taped records and, where possible, missing psychrometric data were computed.

Before the tables are prepared, extreme values of selected parameters are scrutinized so that obvious errors can be excluded. This method is necessarily subjective since the only available record of many observations is the punched card from which the tape records were prepared. Frequently there is no concrete evidence to prove or disprove the validity of questionable data.

Also, it should be noted that these data are based upon observations made by ships in passage. Such ships tend to avoid bad weather when possible, thus biasing our data toward good weather samples.

Because the number of observations may vary from one table to the other, no absolute relationship exists between the tables. As an example, air temperature counts for Tables 13 and 17 may not be identical since only observations containing both air temperature and relative humidity were counted in Table 13 and only those with both temperature and air-sea temperature difference were counted in Table 17. No requirement for simultaneous recording of all elements was made.

The primary period of record is that period (extending back in time from the most recent data) during which eighty percent of the total number of observations were recorded. The overall period is the earliest to the latest observed data used in compiling the tables. Tables 18 and 19 were tabulated from selected decks only and the overall period indicates the period of record of this data source. The primary period for these tables is not shown.

### THE TABLES

Percentage frequencies are computed to hundredths and rounded to tenths. An asterisk (\*) indicates percentage frequency  $> 0$  and  $< .05$ . A value followed by a plus sign indicates greater than or equal to that value (8+ means 8 or greater). NH = low cloud amount (or middle cloud amount when low clouds are not present). The hours given in this publication are GMT.

The geographic position shown on the tables is the central position (centroid) of the observations within the area. This value may fall outside irregular areas.

Annual values are computed on the basis of the sum of the monthlies divided by the number of months.

Tables 1 through 19 appear in numerical order for each month, with the annual tables appearing after the tables for December. Tables 20 and 21 appear at the end of the entire series, after the annual summary for Table 19. The series of summaries appear in numerical order by area number.



Table 1 - Percentage Frequency of Weather Occurrence by Wind Direction (8 pts.).

Table 2 - Percentage Frequency of Weather Occurrence by Hour (GMT).

Table 3 - Percentage Frequency of Wind Direction (8 pts.) by Speed and by Hour (GMT). This table includes mean wind speed (kts.) by direction (8 pts.).

Table 3A - Percentage Frequency of Wind Direction (8 pts.) by Speed and by Hour (GMT). This table includes mean wind speed (kts.) by direction.

Table 4 - Percentage Frequency of Wind Speed by Hour (GMT). This table includes mean speed by hour.

Table 5 - Percentage Frequency of Total Cloud Amount (Oktas) by Wind Direction (8 pts.). This table includes mean cloud amount by wind direction.

Table 6 - Percentage Frequency of Ceiling Heights (feet, NH > 4/8) and Occurrence of NH < 5/8 by Wind Direction (8 pts.).

Table 7 - Cumulative Percentage Frequency of Occurrence of Ceiling Height (feet, NH > 4/8) and Visibility (Nautical Miles).

Table 7A - Percentage Frequency of Low Cloud Amount (or Middle Cloud Amount if Low Clouds are not present). and Percentage Frequency of Sky Obscured. Amounts are in Oktas.

Table 8 - Percentage Frequency of Wind Direction (8 pts.) vs. Occurrence or Non-Occurrence of Precipitation at Observation Time with Varying Values of Visibility (Nautical Miles).

Table 9 - Percentage Frequency of Wind Direction (8 pts.) vs. Wind Speed (kts.) with Varying Values of Visibility (Nautical Miles).

Table 10 - Percentage Frequency of Ceiling Heights (feet, NH > 4/8) and Occurrence of NH < 5/8 by Hour (GMT).

Table 11 - Percentage Frequency of Visibility (Nautical Miles) by Hour (GMT).

Table 12 - Cumulative Percentage Frequency of Ranges of Visibility (Nautical Miles) and Ceiling Height (feet, NH > 4/8) by Hour (GMT).

Table 13 - Percentage Frequency of Relative Humidity (%) by Air Temperature (° F.).

Table 14 - Percentage Frequency of Wind Direction (8 pts.) by Air Temperature (° F.).

Table 15 - Means, Extremes, and Percentiles of Air Temperature (° F.) by Hour (GMT). Extreme temperatures are the one maximum and one minimum value appearing in the marine data file. The extremes may be unrepresentative due to sampling errors. Extrapolation from the percentile values usually gives a better estimate of expected extreme conditions.

Table 16 - Percentage Frequency of Relative Humidity (%) by Hour (GMT).

Table 17 - Percentage Frequency of Air Temperature (° F.) and the Occurrence of Fog vs. Air-Sea Temperature Difference (° F.).

Air-Sea Temperature Difference is:

Positive when the air is warmer than the sea surface; Negative when the air is cooler than the sea surface. In the table heading, the limits of the temperature ranges appear in a vertical arrangement along the top of the table.

Table 18 - Percentage Frequency of Surface Wind Speed (kts.) and Direction (8 pts.) vs. Sea Height (feet). Source deck 128 for which data are available from mid-1963 was used for these tables. This deck represents the latest and most complete homogeneous source of wave data available. Here, only sea waves generated by local winds in the vicinity of the observer are summarized.

Table 19 - Percentage frequency of Wave Height (feet) vs. Wave Period (seconds). In this table when both sea and swell waves are present in an observation, the higher of the two is used. If both are the same height, the longer period is chosen. When only one of the wave groups is observed, either sea or swell, it is used in the summary. Swell waves are those generated by winds distant from the local area where the observation is taken.

Tables 1-19 appear together for each month and in the annual summary. The following two tables appear at the end of the entire series for each area.

Note: In this volume, percentage frequencies at specified hours of the day refer to percentages of observations taken at those hours, rather than percentages of observations taken at all hours. Data at adjacent hours are summarized with data at synoptic hours, i.e., data from 02 and 04 GMT are combined with data from 03 GMT.

Table 20 - Monthly and Annual Percentage Frequencies and Means of Sea Surface Temperature ( $^{\circ}$  F.).

Table 21 - Monthly and Annual Sea Level Pressures (millibars). This table includes means by hour and for all hours, extreme values and percentile values.

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# DIRECTION AND WEATHER CODES

## CONVERSION OF WIND AND WAVE DIRECTION TO 8 POINTS

A reduced bias system was employed in converting wind and wave directions to 8 points. This method attaches weighting values to observations which overlap two different 8 point sectors and treats them as "decimal observation counts." These decimal quantities are rounded to whole numbers for presentation as "observational counts" in the tables. Figures 1-4 below show the 8 point system with other systems superimposed.

Note: Because of rounding, sub-total sums of "observational counts" may not equal grand totals.

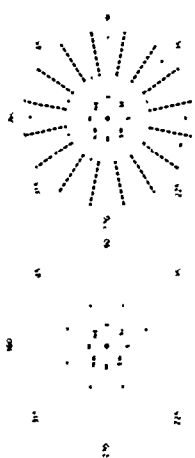


Fig 1 The 8 point direction system

Fig 2 The 16 point direction system superimposed on the 8 point system

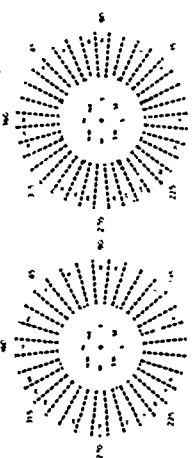


Fig 3 The 32 point direction system superimposed on the 8 point system

Fig 4 The 36 point direction system superimposed on the 8 point system

VISIBILITY (VV)		PRESENT WEATHER (1960 WMO CODE 4677)	
CODE	INTERPRETATION (NAUTICAL MILES)	CODE	INTERPRETATION
90-93	90-93	58-59	58-59
	94	60-65	60-65
	95	91-94	91-94
	96	(68-69, 95, 97 IF TEMP > 10° F)	(68-69, 95, 97 IF TEMP > 10° F)
	97	80-82, (83-84 IF TEMP > 10° F)	80-82, (83-84 IF TEMP > 10° F)
	98	50-55, 59-59	50-55, 59-59
	99	56-57	56-57
		66-67	66-67
		70-75, 85-86	70-75, 85-86
		(68-69, 83-84, 95, 97 IF TEMP > 10° F)	(68-69, 83-84, 95, 97 IF TEMP > 10° F)
		76-79	76-79
		87-90	87-90
		93-94	93-94
		96-99	96-99
		13-17	13-17
		19-29	19-29
		95-99	95-99

NOTE: < means less than;  
> means greater than;  
≤ means less than or equal to;  
≥ means greater than or equal to.

NOTE: The following WMO codes were counted in two weather categories. 58-59 (rain and drizzle). 68-69 (rain and snow). 93-94 (rain and hail). 96 and 99 (hail and thunder lightning/thunderstorm). 95 and 97 (snow and thunder/lightning thunderstorm), or (rain and thunder/lightning thunderstorm).

WAVE HEIGHT (from source decks 128 and 116)

RECORDED CODE (HALF METERS)	AS RECORDED RANGE (METERS)	AS RECORDED IN TABULATION (FEET)	RECORDED CODE (HALF METERS)	AS RECORDED RANGE (METERS)	AS RECORDED IN TABULATION (FEET)	RECORDED CODE (HALF METERS)	AS RECORDED RANGE (METERS)	AS RECORDED IN TABULATION (FEET)
00	≤.25}	<1	12	>5.75 to 6.25}	20-22	30	>14.75 to 15.25}	
01	>.25 to .75}	1-2	13	>6.25 to 6.75}		31	>15.25 to 15.75}	
02	>.75 to 1.25}	3-4	14	>6.75 to 7.25}	23-25	32	>15.75 to 16.25}	49-60
03	>1.25 to 1.75}	5-6	15	>7.25 to 7.75}		33	>16.25 to 16.75}	
04	>1.75 to 2.25}	7	16	>7.75 to 8.25}		34	>16.75 to 17.25}	
05	>2.25 to 2.75}	8-9	17	>8.25 to 8.75}	26-32	35	>17.25 to 17.75}	
06	>2.75 to 3.25}	10-11	18	>8.75 to 9.25}		36	>17.75 to 18.25}	
07	>3.25 to 3.75}	12	19	>9.25 to 9.75}				
08	>3.75 to 4.25}	13-16	20	>9.75 to 10.25}		37	>18.25 to 18.75}	
09	>4.25 to 4.75}		21	>10.25 to 10.75}	33-40	38	>18.75 to 19.25}	61-70
10	>4.75 to 5.25}	17-19	22	>10.75 to 11.25}		39	>19.25 to 19.75}	
11	>5.25 to 5.75}		23	>11.25 to 11.75}		40	>19.75 to 20.25}	
			24	>11.75 to 12.25}		41	>20.25 to 20.75}	
			25	>12.25 to 12.75}		42	>20.75 to 21.25}	
			26	>12.75 to 13.25}				
			27	>13.25 to 13.75}	41-48	43	>21.25 to 21.75}	71-86
			28	>13.75 to 14.25}		44	>21.75 to 22.25}	
			29	>14.25 to 14.75}		45	>22.25 to 22.75}	
						46	>22.75 to 23.25}	
						47	>23.25 to 23.75}	
						48	>23.75 to 24.25}	
						49	>24.25 to 24.75}	
						50	>24.75 to 25.25}	
						51	>25.25 to 25.75}	
						52	>25.75 to 26.25}	
						53-99	>26.25 to 49.75}	≥87

Indeterminate=INDET

PERIOD: (PRIMARY) 1889-1967  
(OVER-ALL) 1855-1967

JANUARY

AREA 0001 SOUTHEAST SUMATRA  
3.75 101.7E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 13 TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	8.3	.0	.0	.0	.0	.0	.0	8.3	.0	16.7	.0	.0	.0	.0	75.0
NE	14.8	.0	.0	.0	.0	.0	.0	14.8	.0	14.8	.0	.0	.0	.0	85.2
E	25.0	.0	.0	.0	.0	.0	.0	25.0	.0	.0	.0	.0	.0	.0	75.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SW	.0	14.8	.0	.0	.0	.0	.0	14.8	.0	.0	.0	.0	.0	.0	85.2
W	32.4	.0	8.1	.0	.0	.0	.0	40.5	2.9	10.8	.0	.0	.0	.0	59.5
NW	9.3	11.4	.7	.0	.0	.0	.0	21.4	2.9	1.4	.0	.0	.0	.0	74.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	25.0	.0	.0	.0	.0	75.0
TOT PCT	10.2	5.7	1.1	.0	.0	.0	.0	17.0	1.1	5.7	.0	.0	.0	.0	78.4
TOT OBS:	88														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 00 TIME	PCPN PAST HOUR	THOR LTNG	FG WD PCPN	FG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	14.3	9.5	.0	.0	.0	.0	.0	23.8	.0	4.8	.0	.0	.0	.0	71.4
06009	3.2	6.5	.0	.0	.0	.0	.0	9.7	3.2	.0	.0	.0	.0	.0	87.1
12015	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.7	.0	.0	.0	.0	93.3
18021	22.7	4.5	4.5	.0	.0	.0	.0	31.8	.0	13.6	.0	.0	.0	.0	63.6
TOT PCT TOT OBS:	10.1 89	5.6	1.1	.0	.0	.0	.0	16.9	1.1	5.6	.0	.0	.0	.0	78.7

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WNO DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	1.8	6.8	2.2	.2	.0	.0		10.9	7.8	15.8	.0	10.3	5.1	6.5	10.0	10.9	16.4	
NE	1.6	3.1	.2	.0	.0	.0		5.0	5.2	9.2	.0	3.0	.9	2.5	30.0	5.8	7.9	
E	1.6	3.0	.2	.0	.0	.0		4.8	5.2	6.6	.0	4.0	1.0	3.5	20.0	5.7	7.6	
SE	2.3	6.2	.7	.0	.0	.0		9.2	5.9	8.6	.0	8.3	7.4	10.4	20.0	10.3	10.0	
S	2.1	3.7	.5	.0	.0	.0		6.4	5.5	4.1	.0	5.5	9.8	6.9	.0	6.4	5.8	
SW	1.8	4.0	.5	.0	.0	.0		6.2	5.9	4.3	.0	4.3	12.3	8.8	.0	4.1	4.0	
W	1.9	7.0	2.9	.6	.0	.0		12.4	8.9	8.1	.0	10.7	20.9	16.3	.0	11.7	7.5	
NW	2.8	17.1	12.5	2.8	.1	.0		35.3	11.0	35.5	.0	42.7	37.5	33.2	10.0	30.9	31.9	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	9.8							9.8	.0	7.7	.0	11.2	5.1	11.9	.0	14.2	9.0	
TOT OBS	779	1544	598	112	4	0	3037		7.6	519	0	516	492	497	5	473	535	
TOT PCT	25.7	50.8	19.7	3.7	.1	.0		100.0		100.0	.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	5.4	4.9	.7	*	.0		10.9	7.8	15.8	7.8	6.6	13.8	
NE	3.8	1.2	*	.0	.0		5.0	5.2	9.2	2.0	2.8	6.9	
E	3.0	1.2	*	.0	.0		4.8	5.2	6.6	2.5	3.8	6.7	
SE	6.1	2.9	.1	.0	.0		9.2	5.9	8.6	7.9	10.5	10.1	
S	4.7	1.6	.1	.0	.0		6.4	5.5	4.1	7.6	6.9	6.1	
SW	4.2	1.9	.1	.0	.0		6.2	5.9	4.3	8.2	8.7	4.1	
W	5.7	4.9	1.7	.1	.0		12.4	8.9	8.1	15.7	16.1	9.4	
NW	10.3	17.6	6.7	.6	*		35.3	11.0	35.5	40.2	33.0	31.4	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	9.8						9.8	.0	7.7	8.2	11.8	11.4	
TOT OBS	1625	1100	288	23	1	3037		7.6	519	1008	502	1008	
TOT PCT	53.5	36.2	9.5	.8	*		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1889-1967  
(OVER-ALL) 1855-1967

JANUARY

AREA 0001 SOUTHEAST SUMATRA  
3.75 101.7E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	7.7	18.9	52.0	17.7	3.5	.2	.0	7.5	100.0	919
0600	8.2	14.5	51.6	21.6	3.9	.2	.0	7.9	100.0	1008
1200	11.8	14.1	51.0	20.1	3.0	.0	.0	7.3	100.0	502
1800	11.6	16.6	49.4	18.6	4.0	.1	.0	7.4	100.0	1008
TOT	297	482	1544	598	112	4	0	7.6		3037
PCT	9.8	15.9	50.8	19.7	3.7	.1	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	6.1	2.0		7.0
NE	.0	.0	6.1	.0		6.8
E	.0	.0	.0	2.7		8.6
SE	.0	.7	2.7	2.7		6.6
S	.0	2.0	.0	.0		4.0
SW	.0	2.7	2.7	2.7		6.0
W	.0	4.7	2.0	7.4		6.0
NW	.0	6.1	20.9	14.9		6.3
VAR	.0	.0	.0	.0		.0
CALM	2.7	.0	8.1	.0		4.7
TOT OBS	1	6	18	12	37	6.1
TOT PCT	2.7	16.2	48.6	32.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.0	.0	2.0	.0	2.0	.0	.0	4.0	
NE	.0	.0	.0	.0	2.7	.0	.0	.0	.0	.0	2.7	
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.7	
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.1	
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	
SW	.0	.0	.0	2.7	.0	.0	.0	.0	.0	.0	5.4	
W	.0	.0	.0	5.4	.0	.0	.0	.0	.0	.0	8.8	
NW	.0	.0	2.7	5.4	8.1	.7	.0	.7	.0	.0	24.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT OBS	1	6	18	12	37	1	1	1	1	1	64.9	37
TOT PCT	.0	.0	2.7	13.5	10.8	2.7	.0	2.7	2.7	.0	64.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (1/4)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
>5000	2.7	5.4	5.4	5.4	5.4	5.4	5.4	5.4
>3500	2.7	5.4	5.4	5.4	5.4	5.4	5.4	5.4
>2000	5.4	8.1	8.1	8.1	8.1	8.1	8.1	8.1
>1000	16.2	18.9	18.9	18.9	18.9	18.9	18.9	18.9
>600	21.6	32.4	32.4	32.4	32.4	32.4	32.4	32.4
>300	21.6	35.1	35.1	35.1	35.1	35.1	35.1	35.1
>150	21.6	35.1	35.1	35.1	35.1	35.1	35.1	35.1
>0	21.6	35.1	35.1	35.1	35.1	35.1	35.1	35.1
TOTAL	8	13	13	13	13	13	13	13

TOTAL NUMBER OF OBS: 37

PCT FREQ NH <5/8: 64.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
.0	11.3	24.5	9.4	18.9	15.1	5.7	7.5	7.5	.0	53

PERIOD: (PRIMARY) 1889-1967  
(OVER-ALL) 1855-1967

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	1.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	1.1	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	2.3	.0	.0	2.3	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	2.3	.0	.0	2.3	
5<10	PCP	.9	1.1	.0	.0	.0	.0	2.3	4.8	.0	.0	9.1	
	NO PCP	3.7	.0	.0	.6	.6	1.1	1.1	6.5	.0	.0	13.6	
	TOT %	4.5	1.1	.0	.6	.6	1.1	3.4	11.4	.0	.0	22.7	
10+	PCP	.0	.0	1.1	.0	.0	1.1	2.0	.3	.0	.0	4.5	
	NO PCP	5.7	6.5	3.4	7.1	6.8	5.4	5.1	24.7	.0	.0	69.3	
	TOT %	4.7	6.5	4.5	7.1	6.8	6.5	7.1	25.0	.0	.0	73.9	
TOT OBS													88
TOT PCT		10.2	7.7	4.5	7.7	7.4	7.7	10.5	39.8	.0	4.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
	4-10	.0	.2	.0	.0	.0	.0	.0	.2	.0	.0	.3	
	11-21	.1	.0	.0	.0	.0	.0	.1	.3	.0	.0	.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.2	.0	.0	.0	.0	.3	.5	.0	.0	1.0	
2<5	0-3	.0	.0	.3	.0	.0	.2	.0	.0	.0	.2	.7	
	4-10	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	11-21	.2	.0	.0	.0	.0	.0	.1	.6	.0	.0	.9	
	22+	.0	.0	.0	.0	.0	.0	.3	.1	.0	.0	.3	
	TOT %	.3	.0	.3	.0	.0	.2	.3	.7	.0	.2	2.1	
5<10	0-3	.3	.0	.2	.2	.1	.4	.3	.4	.0	.3	2.3	
	4-10	1.5	.5	.1	.3	.3	.4	1.4	2.6	.0	.0	7.3	
	11-21	.2	.1	.1	.0	.0	.0	.6	3.9	.0	.0	4.9	
	22+	.0	.0	.0	.0	.0	.0	.3	.3	.0	.0	.5	
	TOT %	2.2	.6	.3	.5	.4	.9	2.5	7.1	.0	.3	14.9	
10+	0-3	2.4	1.9	1.6	2.3	2.3	1.6	1.6	4.7	.0	8.3	28.7	
	4-10	5.4	2.0	2.4	3.2	2.0	3.4	7.1	17.0	.0	.0	42.6	
	11-21	.7	.0	.0	.0	.0	.2	1.3	8.2	.0	.0	10.4	
	22+	.0	.0	.0	.0	.0	.0	.1	1.6	.0	.0	1.7	
	TOT %	8.5	3.9	4.0	5.5	4.3	5.2	10.1	31.5	.0	8.3	81.5	
TOT OBS													577
TOT PCT		11.1	4.7	4.7	6.0	4.8	6.3	13.2	40.4	.0	8.8	100.0	

PERIOD: (PRIMARY) 1889-1967  
(OVER-ALL) 1855-1967

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	12.5	12.5	.0	.0	.0	6.3	.0	31.3	68.8	16
06009	.0	.0	.0	13.3	6.7	6.7	.0	6.7	.0	.0	33.3	66.7	15
12015	.0	.0	12.5	.0	12.5	.0	.0	.0	.0	.0	25.0	75.0	8
18021	.0	.0	.0	12.5	.0	.0	.0	.0	.0	.0	12.5	87.5	8
TOT	0	0	1	5	4	1	0	1	1	0	13	34	47
PCT	.0	.0	2.1	10.6	8.5	2.1	.0	2.1	2.1	.0	27.7	72.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	1.0	3.0	14.1	81.8	99
06009	.0	.0	.5	.0	12.0	87.4	191
12015	1.0	.0	.0	1.0	16.7	81.3	96
18021	1.0	.0	2.1	4.2	17.7	75.0	192
TOT	3	0	6	12	87	470	578
PCT	.5	.0	1.0	2.1	15.1	81.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	16.7	25.0	58.3	12
06009	.0	.0	16.7	25.0	58.3	12
12015	.0	12.5	12.5	12.5	75.0	8
18021	.0	.0	20.0	.0	80.0	5
TOT	0	1	6	7	21	37
PCT	.0	2.7	16.2	18.9	64.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	3.0	.0	.0	.0	1	3.0
80/84	.0	.0	.0	.0	3.0	21.2	51.5	3.0	26	78.8
75/79	.0	.0	.0	.0	.0	.0	6.1	12.1	6	18.2
TOTAL	0	0	0	0	2	7	19	5	33	100.0
PCT	.0	.0	.0	.0	6.1	21.2	57.6	15.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	.0	.0	.0	.0	3.0	.0	.0
80/84	6.8	3.0	.0	6.1	2.3	9.8	4.5	40.2	.0	6.1
75/79	.0	.0	3.0	.0	.0	.0	6.1	6.1	.0	3.0
TOTAL	6.8	3.0	3.0	6.1	2.3	9.8	10.6	49.2	.0	9.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	92	87	85	81	76	74	73	80.7	512
06009	92	89	87	83	78	76	72	82.6	981
12015	89	87	85	82	77	75	73	81.5	490
18021	88	86	84	80	76	74	73	80.2	985
TOT	92	88	86	81	77	74	72	81.3	2968

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	23.1	61.5	15.4	84	13
06009	.0	.0	.0	36.4	54.5	9.1	83	11
12015	.0	.0	33.3	16.7	33.3	16.7	78	6
18021	.0	.0	.0	.0	75.0	25.0	86	4
TOT	0	0	2	8	19	5	83	34



PERIOD: (PRIMARY) 1889-1967  
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 75	77 80	81 84	85 88	TOT	N FOG	NO FOG
7/8	.0	.0	1.2	.0	1	.0	1.2
4	.0	.0	1.2	.0	1	.0	1.2
2	.0	.0	3.7	1.2	4	.0	4.9
1	.0	.0	2.4	1.2	3	.0	3.7
0	1.2	1.2	9.8	1.2	11	.0	13.4
-1	.0	.0	18.3	.0	15	.0	18.3
-2	.0	4.9	14.6	.0	16	.0	19.5
-3	.0	7.3	7.3	.0	12	.0	14.6
-4	1.2	6.1	6.1	.0	11	.0	13.4
-5	1.2	3.7	1.2	.0	5	.0	6.1
-6	.0	1.2	.0	.0	1	.0	1.2
-7/-8	1.2	1.2	.0	.0	2	.0	2.4
TOTAL	4	21	54	3	82	0	82
PCT	4.9	25.6	65.9	3.7	100.0		100.0

PERIOD: (OVER-ALL) 1963-1967

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	N 22-33	34-47	48+	PCT	1-3	4-10	11-21	NE 22-33	34-47	48+	PCT
41	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	12.5	.0	.0	.0	.0	.0	12.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	12.5	.0	.0	.0	.0	.0	12.5

HGT	1-3	4-10	11-21	E 22-33	34-47	48+	PCT	1-3	4-10	11-21	SE 22-33	34-47	48+	PCT
41	.0	.0	.0	.0	.0	.0	.0	.0	3.1	.0	.0	.0	.0	3.1
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	3.1	.0	.0	.0	.0	3.1

PERIOD: (OVER-ALL) 1963-1967

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	9.4	.0	.0	.0	.0		9.4	.0	.0	.0	.0	.0	.0		.0
1-2	.0	.0	.0	.0	.0	.0		.0	.0	.0	12.5	.0	.0	.0		12.5
3-4	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.0	9.4	.0	.0	.0	.0		9.4	.0	.0	12.5	.0	.0	.0		12.5

HGT	M							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
1-2	.0	.0	.0	.0	.0	.0		.0	25.0	.0	.0	.0	.0	.0		25.0	
3-4	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.0	12.5	.0	.0	.0		12.5	
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	12.5	.0	.0		12.5	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.0	.0	.0	12.5	.0	.0		12.5	.0	25.0	12.5	.0	.0	.0		37.5	87.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	12.5	12.5	.0	.0	.0	.0	25.0	
1-2	12.5	25.0	12.5	.0	.0	.0	50.0	
3-4	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	12.5	.0	.0	.0	12.5	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	12.5	.0	.0	12.5	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	25.0	37.5	25.0	12.5	.0	.0	100.0	

PERIOD: (OVER-ALL) 1949-1967

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-1	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
<6	.0	21.6	8.1	2.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12	3
6-7	.0	13.5	10.8	8.1	5.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14	4
8-9	.0	.0	2.7	5.4	5.4	2.7	.0	2.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	7
10-11	.0	.0	5.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	3
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDEX	.0	2.7	2.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	3
TOTAL	.0	14	11	6	4	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	37	4
PCT	.0	37.8	29.7	16.2	10.8	2.7	.0	2.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1890-1973  
(OVER-ALL) 1895-1973

# FEBRUARY

AREA C-1 SOUTHEAST SUMATRA  
3.75 101.7E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE						MAIL	OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN		PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG MEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	22.2	.0	.0	.0	.0	77.4
NE	57.1	.0	.0	.0	.0	.0	.0	57.1	.0	28.6	.0	.0	.0	.0	14.3
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SW	33.3	.0	.0	.0	.0	.0	.0	33.3	33.3	.0	.0	.0	.0	.0	33.3
W	.0	6.9	.0	.0	.0	.0	.0	6.9	6.9	.0	.0	.0	.0	.0	86.2
NW	17.2	3.4	.0	.0	.0	.0	.0	20.7	13.1	.0	.0	.0	.0	.0	63.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	12.9	3.2	.0	.0	.0	.0	.0	16.1	9.7	3.2	.0	.0	.0	.0	71.0
TOT OBS:	62														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GHT)	PRECIPITATION TYPE						MAIL	OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN		PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG MEA
00003	12.5	.0	.0	.0	.0	.0	.0	12.5	12.5	.0	.0	.0	.0	.0	75.0
06009	18.2	.0	.0	.0	.0	.0	.0	18.2	18.2	.0	.0	.0	.0	.0	63.6
12015	.0	7.1	.0	.0	.0	.0	.0	7.1	.0	7.1	.0	.0	.0	.0	85.7
18021	18.2	9.1	.0	.0	.0	.0	.0	27.3	.0	9.1	.0	.0	.0	.0	63.6
TOT PCT	12.7	3.2	.0	.0	.0	.0	.0	15.9	9.5	3.2	.0	.0	.0	.0	71.4
TOT OBS:	63														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)						48+	TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GHT)							
	0-3	4-10	11-21	22-33	34-47						00	03	06	09	12	15	18	21
N	1.8	6.3	2.2	.2	.0	.0	.0	10.5	8.1	17.6	.0	7.2	4.5	8.4	.0	12.5	12.8	
NE	1.6	3.9	.4	.0	.0	.0	.0	5.9	5.7	9.2	.0	2.8	1.7	3.8	.0	8.2	9.5	
E	1.9	2.6	.3	.0	.0	.0	.0	4.4	5.5	4.3	.0	2.0	1.1	3.3	.0	6.5	7.3	
SE	2.1	4.5	.5	.0	.0	.0	.0	7.1	3.8	8.7	.0	8.1	4.2	6.5	.0	7.1	8.0	
S	2.0	4.7	.3	.0	.0	.0	.0	6.9	5.4	3.4	.0	7.4	11.6	8.6	.0	5.5	5.2	
SW	2.1	4.5	.6	.1	.0	.0	.0	7.5	5.8	4.1	.0	7.3	13.0	9.0	.0	6.8	3.5	
W	2.6	7.8	3.1	.6	.0	.0	.0	14.1	8.3	8.3	.0	13.9	21.8	19.5	100.0	10.8	10.2	
NW	3.1	16.6	10.2	3.0	.2	.0	.0	33.1	10.9	31.8	.0	39.6	36.0	29.9	.0	28.5	32.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	10.8							10.8	.0	10.6	.0	11.6	6.0	11.0	.0	14.1	11.2	
TOT DBS	769	1426	489	110	5	0	2799		7.4	472	0	493	451	463	1	453	466	
TOT PCT	27.5	50.9	17.8	3.9	.2	.0		100.0		100.0	.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)						41+	TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GHT)			
	0-6	7-16	17-27	28-40							00	06	12	18
N	4.7	5.0	.6	.1	.0	.0	.0	10.5	8.1	17.6	5.9	8.4	12.6	
NE	4.2	1.6	.1	.0	.0	.0	.0	5.9	5.7	9.2	2.3	3.8	8.9	
E	3.3	.9	.2	.0	.0	.0	.0	4.4	5.5	4.3	1.6	3.3	6.9	
SE	4.6	2.5	.0	.0	.0	.0	.0	7.1	3.8	8.7	6.3	6.5	7.6	
S	5.0	1.9	.0	.0	.0	.0	.0	6.9	5.4	3.4	9.4	8.6	5.3	
SW	5.2	1.9	.1	.0	.0	.0	.0	7.5	5.8	4.1	10.0	8.9	5.2	
W	6.9	5.7	1.4	.1	.0	.0	.0	14.1	8.3	8.3	17.7	19.7	10.5	
NW	10.5	15.3	6.3	1.0	.1	.0	.0	33.1	10.9	31.8	37.9	29.8	30.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	10.8							10.8	.0	10.6	8.9	11.0	12.6	
TOT DBS	1942	973	247	35	2	2799		472	7.4	493	944	464	919	
TOT PCT	55.1	34.8	8.8	1.3	.1			100.0		100.0	100.0	100.0	100.0	

## FEBRUARY

PERIOD: (PRIMARY) 1890-1973  
(OVER-ALL) 1855-1973

AREA 0001 SOUTHEAST SUMATRA  
3.75 101.7E

TABLE 4

## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
06003	10.6	18.6	49.8	16.9	3.8	.2	.0	.0	7.3	100.0	472
06009	8.9	15.6	52.1	19.3	3.8	.1	.0	.0	7.7	100.0	944
12015	11.0	16.4	52.4	15.3	4.7	.2	.0	.0	7.4	100.0	464
18021	12.4	17.1	49.6	16.8	3.7	.2	.0	.0	7.1	100.0	919
TOT	301	408	1426	489	110	5	.0	.0	7.4		2799
PCT	10.8	16.7	50.9	17.5	3.9	.2	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	1.3	6.3		7.6
NE	.0	.0	.0	3.6		8.0
E	.0	.0	.0	.0		.0
SE	1.8	.4	.0	1.8		4.8
S	.0	1.3	.0	.0		4.0
SW	.0	.0	1.8	3.6		7.6
W	.0	3.1	8.9	12.1		6.7
NW	.0	4.0	21.9	22.8		7.1
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	5.4	.0		6.3
TOT OBS	1	5	22	28	56	6.9
TOT PCT	1.8	8.9	39.3	50.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM) >4/8  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NM <5/8	TOTAL
14%	29%	59%	99%	199%	349%	699%	649%	799%		ANY HGT	OBS
.0	.0	.0	.0	3.1	1.8	.0	.0	1.3	.0	1.3	
.0	.0	1.8	.0	1.8	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	1.8	.0	.0	.0	.0	.0	.0	
.0	1.8	1.8	1.3	4.9	.0	.0	.0	.0	.0	14.3	
.0	.0	.0	9.4	9.8	.0	1.8	3.6	.4	.0	23.7	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	1	2	6	12	1	1	2	1	0	30	56
.0	1.8	3.6	10.7	21.4	1.8	1.8	3.6	1.8	.0	53.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
>5000	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
>3500	5.4	7.1	7.1	7.1	7.1	7.1	7.1	7.1
>2000	7.1	8.9	8.9	8.9	8.9	8.9	8.9	8.9
>1000	16.1	25.0	30.4	30.4	30.4	30.4	30.4	30.4
>600	19.6	33.9	41.1	41.1	41.1	41.1	41.1	41.1
>300	21.4	37.3	46.4	46.4	46.4	46.4	46.4	46.4
>150	21.4	37.3	46.4	46.4	46.4	46.4	46.4	46.4
>0	21.4	37.3	46.4	46.4	46.4	46.4	46.4	46.4
TOTAL	12	21	26	26	26	26	26	26

TOTAL NUMBER OF OBS: 56

PCT FREQ NM &lt;5/8: 53.6

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
.0	5.3	21.1	12.3	14.0	7.0	14.0	5.3	21.1	.0	57

PERIOD: (PRIMARY) 1890-1973  
(OVER-ALL) 1855-1973

FEBRUARY

AREA 0001 SOUTHEAST SUMATRA  
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.0	.0	.0	.0	.0	.0	1.6	4.8	.0	.0	6.5	.0
	NO PCP	.0	.0	.0	.0	.0	.0	1.6	1.6	.0	.0	3.2	.0
	TOT %	.0	.0	.0	.0	.0	.0	3.2	6.5	.0	.0	9.7	.0
5<10	PCP	.0	.0	.0	.0	.0	1.6	.0	4.8	.0	.0	6.5	.0
	NO PCP	1.6	1.6	.0	.0	.0	.0	6.0	5.2	.0	.0	14.5	.0
	TOT %	1.6	1.6	.0	.0	.0	1.6	6.0	10.1	.0	.0	21.0	.0
10+	PCP	.0	3.2	.0	.0	.0	.0	.0	.0	.0	.0	3.2	.0
	NO PCP	5.6	.8	.8	3.6	1.2	3.2	14.1	30.2	.0	.0	66.1	.0
	TOT %	5.6	4.0	.8	3.6	1.2	3.2	14.1	30.2	.0	.0	69.4	.0
TOT OBS		7.3	5.6	.8	3.6	1.2	4.8	23.4	46.8	.0	6.4	100.0	62
TOT PCT		7.3	5.6	.8	3.6	1.2	4.8	23.4	46.8	.0	6.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.2	.0	.0	.0	.1	.1	.4	.2	.0	.0	1.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.2	.0	.0	.0	.1	.1	.4	.2	.0	.0	1.0	.0
2<5	0-3	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.4	.0
	4-10	.1	.4	.4	.1	.0	.0	.3	.7	.0	.0	1.9	.0
	11-21	.0	.0	.0	.0	.0	.0	.4	.2	.0	.0	.6	.0
	22+	.0	.0	.0	.0	.0	.0	.2	.4	.0	.0	.6	.0
	TOT %	.3	.4	.4	.1	.2	.0	.9	1.3	.0	.0	3.5	.0
5<10	0-3	.2	.4	.1	.2	.1	.6	.6	.0	.0	.6	2.7	.0
	4-10	1.6	.4	.5	.3	.9	.4	1.9	1.6	.0	.0	7.5	.0
	11-21	.4	.0	.0	.0	.0	.1	.4	.9	.0	.0	1.7	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.4	.0
	TOT %	2.2	.8	.6	.5	1.0	1.1	2.8	2.8	.0	.6	12.4	.0
10+	0-3	3.1	2.9	2.0	2.3	1.9	1.7	2.4	2.9	.0	9.3	28.6	.0
	4-10	6.3	4.3	1.7	3.1	5.0	4.2	6.2	14.0	.0	.0	45.0	.0
	11-21	1.0	.0	.0	.0	.0	.0	2.2	6.3	.0	.0	9.5	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	10.4	7.2	3.8	5.3	6.9	6.0	10.8	23.6	.0	9.3	82.0	.0
TOT OBS		13.1	8.4	4.7	6.1	8.3	7.1	14.9	27.6	.0	9.8	100.0	518
TOT PCT		13.1	8.4	4.7	6.1	8.3	7.1	14.9	27.6	.0	9.8	100.0	

## FEBRUARY

PERIOD: (PRIMARY) 1890-1973  
(OVER-ALL) 1855-1973AREA 0001 SOUTHEAST SUMATRA  
3.75 101.7E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	6.3	6.3	23.0	.0	.0	.0	6.3	.0	43.8	56.3	16
06009	.0	.0	5.0	15.0	15.0	.0	.0	5.0	.0	.0	40.0	60.0	20
12015	.0	.0	.0	16.7	16.7	.0	.0	8.3	.0	.0	41.7	58.3	12
18021	.0	12.5	.0	.0	37.5	12.5	12.5	.0	.0	.0	75.0	25.0	8
TOT	0	1	2	6	12	1	1	2	1	0	26	30	56
PCT	.0	1.8	3.6	10.7	21.4	1.8	1.8	3.6	1.8	.0	46.4	53.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	3.3	12.0	84.8	92
06009	.0	.0	.0	1.8	6.6	91.0	107
12015	.0	.0	3.2	3.2	15.8	77.9	95
18021	.0	.0	.0	5.5	17.0	76.4	105
TOT	1	0	5	18	65	430	519
PCT	.2	.0	1.0	3.5	12.5	82.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOURL (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	6.3	12.5	31.3	56.3	16
06009	.0	5.0	20.0	20.0	60.0	20
12015	.0	.0	33.3	8.3	58.3	12
18021	.0	12.5	25.0	50.0	25.0	8
TOT	0	3	12	14	30	56
PCT	.0	5.4	21.4	25.0	53.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	5.6	5.6	.0	.0	4	11.1
80/84	.0	.0	.0	.0	.0	22.2	30.0	5.6	28	77.8
75/79	.0	.0	.0	.0	.0	2.8	2.8	5.6	4	11.1
TOTAL	0	0	0	0	2	11	19	4	36	100.0
PCT	.0	.0	.0	.0	5.6	30.6	52.8	11.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	2.8	.0	.0	2.8	.0	.0	4.9	.7	.0	.0
80/84	6.9	.0	.0	3.5	2.1	5.6	20.8	33.3	.0	5.6
75/79	.0	5.6	.0	.0	.0	.0	2.8	2.8	.0	.0
TOT	9.7	5.6	.0	6.3	2.1	5.6	28.5	36.8	.0	5.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	86	85	81	76	74	72	80.9	461
06009	93	90	87	83	78	76	74	83.0	914
12015	89	87	85	82	78	75	73	81.9	453
18021	89	86	84	81	76	74	72	80.5	901
TOT	93	88	86	82	77	75	72	81.6	2729

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	45.5	45.5	9.1	81	11
06009	.0	.0	16.7	16.7	41.7	25.0	81	12
12015	.0	.0	.0	33.3	66.7	.0	80	6
18021	.0	.0	.0	28.6	71.4	.0	81	7
TOT	0	0	2	11	19	4	80	36

## FEBRUARY

PERIOD: (PRIMARY) 1890-1973  
(OVER-ALL) 1855-1973

TABLE 17

AREA 0001 SOUTHEAST SUMATRA  
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PCT FREQ OF AIR TEMPERATURE (DEG F) AND THF OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
6	.0	.0	.0	.0	1.9	1	.0	1.9
3	.0	.0	1.9	.0	.0	1	.0	1.9
2	.0	.0	5.8	1.9	.0	4	.0	7.7
1	.0	1.9	1.9	7.7	.0	6	.0	11.5
0	.0	.0	15.4	.0	.0	8	.0	15.4
-1	.0	3.8	12.3	.0	.0	9	.0	17.3
-2	1.9	13.5	4.6	.0	.0	12	.0	25.0
-3	.0	3.8	3.8	.0	.0	4	.0	7.7
-4	.0	5.8	.0	.0	.0	3	.0	5.8
-5	1.9	1.9	.0	.0	.0	2	.0	3.8
-6	.0	1.9	.0	.0	.0	1	.0	1.9
TOTAL	2	17	27	5	1	52	0	52
PCT	3.8	32.7	51.9	9.6	1.9	100.0		100.0

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	25.0	.0	.0	.0	.0	25.0

PERIOD: (OVER-ALL) 1963-1973

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AREA 0001 SOUTHEAST SUMATRA  
3.75 101.7E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	15.0	.0	.0	.0	.0	15.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	15.0	.0	.0	.0	.0	15.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	W							NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	.0	.0	20.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	.0	.0	.0	20.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	20.0	20.0	.0	.0	.0	40.0	80.0	.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	20.0	.0	.0	.0	.0	.0	.0	20.0
1-2	.0	40.0	.0	.0	.0	.0	.0	40.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	20.0	.0	.0	.0	.0	20.0
7	.0	20.0	.0	.0	.0	.0	.0	20.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	20.0	60.0	20.0	.0	.0	.0	100.0	.0

PERIOD: (OVER-ALL) 1949-1973

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.0	9.8	11.8	3.9	3.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16	3
6-7	.0	11.8	19.6	11.8	3.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	24	4
8-9	.0	.0	3.9	2.0	3.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	5
10-11	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	3
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0
>13	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	11
INDEX	.0	.0	3.9	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	4
TOTAL	1	11	22	10	.0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	51	4
PCT	2.0	21.6	43.1	19.6	11.8	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	



PERIOD: (PRIMARY) 1885-1965  
(OVER-ALL) 1859-1965

MARCH

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3.75 101.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG NEA
N	8.2	.0	.0	.0	.0	.0	.0	8.3	.0	.0	.0	.0	.0	.0	91.7
NE	10.0	.0	.0	.0	.0	.0	.0	10.0	.0	.0	.0	.0	.0	.0	90.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	.0	.0	.0	.0	98.5
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	.0	.0	.0	80.0
SW	.0	.0	.0	.0	.0	.0	.0	.0	11.8	11.8	.0	.0	.0	.0	76.5
W	.0	.0	.0	.0	.0	.0	.0	.0	6.0	6.0	.0	.0	.0	.0	88.1
NW	2.6	4.8	.0	.0	.0	.0	.0	14.3	9.6	4.8	.0	.0	.0	.0	71.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	.0	.0	.0	80.0
TOT PCT	3.3	1.1	.0	.0	.0	.0	.0	4.4	4.4	6.7	.0	.0	.0	.0	84.4
TOT OBS:	90														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG NEA
00003	10.0	.0	.0	.0	.0	.0	.0	10.0	5.0	.0	.0	.0	.0	.0	95.0
06009	.0	3.4	.0	.0	.0	.0	.0	3.4	.0	.0	.0	.0	.0	.0	96.6
12015	.0	.0	.0	.0	.0	.0	.0	.0	5.6	.0	.0	.0	.0	.0	94.4
18021	3.8	3.8	.0	.0	.0	.0	.0	7.7	7.7	23.1	.0	.0	.0	.0	61.3
TOT PCT	3.2	2.2	.0	.0	.0	.0	.0	5.4	4.3	6.5	.0	.0	.0	.0	83.9
TOT OBS:	93														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.8	7.1	1.7	.2	.0	.0		10.8	7.4	16.8	100.0	11.1	3.6	6.7	20.0	12.9	13.4	
NE	1.6	3.9	.4	.0	.0	.0		6.0	5.8	8.7	.0	2.4	1.4	5.1	.0	10.0	9.0	
E	1.4	4.4	.5	.0	.0	.0		6.2	6.1	9.1	.0	4.0	2.7	4.5	20.0	7.8	9.2	
SE	2.1	7.2	1.2	.0	.0	.0		10.6	6.6	10.8	.0	11.5	8.8	11.1	10.0	10.4	10.7	
S	1.9	4.1	.7	.0	.0	.0		6.6	3.0	3.1	.0	8.1	10.7	7.7	30.0	8.6	5.7	
SW	1.6	4.0	.7	.1	.0	.0		6.4	6.4	3.8	.0	3.8	12.0	7.9	.0	5.2	4.1	
W	1.9	7.5	2.0	.4	.0	.0		11.8	8.1	8.2	.0	9.9	20.2	15.8	.0	9.3	7.9	
NW	3.1	17.3	9.8	1.4	.0	.0		31.5	9.7	29.8	.0	37.5	33.1	30.5	20.0	27.4	30.5	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	9.9							9.9	.0	9.7	.0	11.8	7.5	10.7	.0	10.6	9.4	
TOT OBS	811	1778	547	70	2	0	3208		7.0	537	1	553	534	516	9	521	541	
TOT PCT	25.3	55.4	17.1	2.2	.1	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	03	06	12
N	6.0	4.2	.6	.0	.0			10.8	7.4	16.9	7.4	6.1	13.1	
NE	4.2	1.8	.1	.0	.0			6.0	5.8	8.6	1.9	5.1	9.5	
E	4.1	2.0	.1	.0	.0			6.2	6.1	9.1	3.4	4.6	8.5	
SE	6.5	3.8	.3	.0	.0			10.6	6.6	10.8	10.2	11.1	10.6	
S	4.5	2.0	.2	.0	.0			6.6	3.0	3.1	8.3	7.9	6.1	
SW	4.3	1.8	.2	.0	.0			6.4	6.4	3.8	8.8	7.9	4.6	
W	3.7	5.1	.9	.1	.0			11.8	8.1	8.2	14.9	15.6	8.6	
NW	11.1	15.8	4.3	.3	.0			31.5	9.7	29.8	33.4	30.4	29.0	
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	
CALM	9.9							9.9	.0	9.7	9.7	10.6	10.0	
TOT OBS	1803	1174	214	17	0	3208			7.0	538	1087	521	1062	
TOT PCT	56.2	36.6	6.7	.5	.0			100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1889-1965  
(OVER-ALL) 1859-1965

MARCH

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	9.7	17.1	53.5	17.5	2.2	.0	.0	6.9	100.0	538
06009	9.7	16.4	54.6	17.4	1.9	.0	.0	7.0	100.0	1087
12015	10.6	14.0	55.5	17.5	2.3	.2	.0	7.2	100.0	521
18021	10.0	14.1	57.2	16.3	2.4	.1	.0	7.1	100.0	1062
TOT	318	493	1778	547	70	2	0	7.0		3208
PCT	9.9	15.4	55.4	17.1	2.2	.1	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL FBS	MEAN CLOUD COVER
N	.0	.0	7.9	.0	7.9	7.0
NE	.0	.0	.0	2.6		8.0
E	.0	2.0	.0	.0	4.0	4.0
SE	5.3	3.3	13.2	.0	4.4	4.4
S	.0	.0	5.3	.0	6.0	6.0
SW	.0	5.3	.0	5.3	6.0	6.0
W	.0	.0	4.6	2.6	6.0	6.0
NW	.0	.0	13.8	18.4	7.2	7.2
VAR	.0	.0	.0	.0	.0	.0
CALM	.0	5.3	5.3	.0	5.0	5.0
TOT OBS	2	6	19	11	38	6.0
TOT PCT	5.3	15.8	50.0	28.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NM <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.9	
NE	.0	.0	.0	.0	2.6	.0	.0	.0	.0	.0	.0	
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	
SE	.0	.0	.0	.0	2.6	.0	.0	.0	.0	.0	19.1	
S	.0	.0	.0	.0	2.6	.0	.0	.0	.0	.0	2.6	
SW	.0	.0	2.6	.0	2.6	.0	.0	.0	.0	.0	5.3	
W	.0	.0	.0	.0	2.6	.0	.0	.0	.0	.0	4.6	
NW	.0	.0	2.6	5.3	10.5	5.3	.0	2.6	.0	.0	5.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	2.6	.0	.0	.0	.0	.0	7.9	
TOT OBS	0	2	2	10	2	0	1	0	0	0	21	38
TOT PCT	.0	.0	5.3	5.3	26.3	5.3	.0	2.6	.0	.0	55.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.0	.0	.0	.0	.0	.0	.0	.0
= OR >5000	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
= OR >3500	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
= OR >2000	2.6	7.9	7.9	7.9	7.9	7.9	7.9	7.9
= OR >1000	23.7	34.2	34.2	34.2	34.2	34.2	34.2	34.2
= OR >600	26.3	36.8	39.5	39.5	39.5	39.5	39.5	39.5
= OR >300	26.3	36.8	44.7	44.7	44.7	44.7	44.7	44.7
= OR >150	26.3	36.8	44.7	44.7	44.7	44.7	44.7	44.7
= OR >0	26.3	36.8	44.7	44.7	44.7	44.7	44.7	44.7
TOTAL	10	14	17	17	17	17	17	17

TOTAL NUMBER OF OBS: 38

PCT FREQ NM <5/8: 55.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
2.3	2.3	20.5	15.9	20.5	6.8	11.4	2.3	18.2	.0	44

PERIOD: (PRIMARY) 1889-1965  
(OVER-ALL) 1859-1965

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	1.1	
	NO PCP	.0	.0	.0	.3	1.9	1.1	.0	1.1	.0	.0	4.4	
	TOT %	.0	.0	.0	.3	1.9	1.1	.0	2.2	.0	.0	5.6	
5<10	PCP	.6	.6	.0	.0	.0	.0	.0	1.1	.0	.0	2.2	
	NO PCP	.6	1.7	.6	6.1	5.0	3.3	7.2	8.9	.0	.0	33.3	
	TOT %	1.1	2.2	.6	6.1	5.0	3.3	7.2	10.0	.0	.0	35.6	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	1.1	
	NO PCP	5.6	3.3	1.9	12.5	2.8	5.0	11.4	9.7	.0	5.6	57.8	
	TOT %	5.6	3.3	1.9	12.5	2.8	5.0	11.4	10.8	.0	5.6	58.9	
TOT OBS													90
TOT PCT		6.7	5.6	2.5	18.9	9.7	9.4	18.6	23.1	.0	5.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD K <sup>1</sup>	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.3	.0	.0	.0	.0	.2	.4	.0	.0	.0	1.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.3	.0	.0	.0	.0	.2	.2	.4	.0	.0	1.0	
2<5	0-3	.0	.0	.0	.0	.2	.0	.1	.1	.0	.2	.5	
	4-10	.7	.3	.2	.0	.0	.2	.4	1.0	.0	.0	2.8	
	11-21	.0	.0	.0	.0	.1	.0	.1	.4	.0	.0	.7	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.7	.3	.2	.0	.3	.2	.6	1.6	.0	.2	4.0	
5<10	0-3	.3	.1	.1	.1	.2	.1	.2	1.0	.0	1.0	3.1	
	4-10	1.1	.3	.2	1.1	.8	.8	1.3	2.8	.0	.0	8.4	
	11-21	.0	.2	.0	.0	.0	.0	.2	.7	.0	.0	1.0	
	22+	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
	TOT %	1.5	.6	.3	1.2	.9	.9	1.8	4.5	.0	1.0	12.8	
10+	0-3	2.2	1.6	2.0	1.4	1.6	1.6	2.1	3.1	.0	6.7	22.2	
	4-10	7.2	4.1	2.7	4.3	2.0	3.4	7.3	18.8	.0	.0	50.0	
	11-21	1.6	.0	.0	.2	.0	.0	.8	3.8	.0	.0	8.4	
	22+	.4	.0	.0	.0	.0	.0	.3	.7	.0	.0	1.4	
	TOT %	11.5	5.7	4.7	6.1	3.6	4.9	10.5	28.4	.0	6.7	82.1	
TOT OBS													580
TOT PCT		14.1	8.6	3.2	7.3	4.9	6.1	13.1	34.9	.0	7.9	100.0	

MARCH

PERIOD: (PRIMARY) 1889-1965  
(OVER-ALL) 1859-1965AREA 0001 SOUTHEAST SUMATRA  
3.75 101.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	6.7	6.7	20.0	6.7	.0	6.7	.0	.0	46.7	53.3	15
06009	.0	.0	.0	.0	9.1	.0	.0	.0	.0	.0	9.1	90.9	11
12015	.0	.0	.0	.0	44.4	11.1	.0	.0	.0	.0	55.6	44.4	9
18021	.0	.0	11.1	11.1	22.2	.0	.0	.0	.0	.0	44.4	55.6	9
TOT	0	0	2	2	10	2	0	1	0	0	17	27	44
PCT	.0	.0	4.5	4.5	22.7	4.5	.0	2.3	.0	.0	38.6	61.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	1.0	.0	1.0	6.8	10.7	80.6	103
06009	.0	.0	1.0	.5	8.9	89.5	191
12015	.0	.0	.0	3.2	12.9	83.9	93
18021	.0	.0	1.5	6.1	18.4	74.0	196
TOT	1	0	6	23	76	471	583
PCT	.2	.0	1.0	3.9	13.0	81.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	7.7	15.4	38.5	46.2	13
06009	.0	.0	.0	11.1	88.9	9
12015	.0	.0	11.1	55.6	33.3	9
18021	.0	14.3	28.6	28.6	42.7	7
TOT	0	2	5	13	20	38
PCT	.0	5.3	13.2	34.2	52.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.0	3.3	3.3	.0	2	6.7
80/81	.0	.0	.0	.0	.0	20.0	46.7	10.0	23	76.7
75/79	.0	.0	.0	.0	.0	.0	13.3	3.3	5	16.7
TOTAL	0	0	0	0	0	7	19	4	30	100.0
PCT	.0	.0	.0	.0	.0	23.3	63.3	13.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	3.3	1.7	1.7	.0	.0	.0	.0
80/81	.0	3.3	.5	21.7	7.5	11.7	16.7	13.3	.0	.0
75/79	1.7	1.7	.0	.0	.0	3.3	3.3	6.7	.0	.0
TOTAL	1.7	5.0	2.5	25.0	9.2	16.7	20.0	20.0	.0	.0

TABLE 15

MEAN, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	89	88	85	81	77	74	73	81.2	513
06009	92	90	88	83	79	76	73	83.5	1040
12015	90	87	86	82	78	75	70	82.3	904
18021	87	86	84	81	77	75	72	80.8	1030
TOT	92	89	86	82	77	75	70	82.0	3087

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	10.0	80.0	10.0	86	10
06009	.0	.0	.0	33.3	55.6	11.1	81	9
12015	.0	.0	.0	40.0	20.0	40.0	83	9
18021	.0	.0	.0	25.0	75.0	.0	84	3
TOT	0	0	0	8	20	4	83	32

PERIOD: (PRIMARY) 1889-1965  
(OVER-ALL) 1859-1965

MARCH

AREA 0001 SOUTHEAST SUMATRA  
3.75 101.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	YDT	N FOG	N0 FOG
5	.0	.0	1.1	1.1	2	.0	2.2
3	.0	.0	.0	2.2	2	.0	2.2
2	.0	.0	.0	3.4	3	.0	3.4
1	.0	.0	2.2	.0	2	.0	2.2
0	.0	.0	23.6	2.2	23	.0	25.8
-1	.0	.0	12.4	1.1	12	.0	13.5
-2	.0	3.4	24.7	.0	25	.0	28.1
-3	.0	1.1	1.1	.0	2	.0	2.2
-4	.0	3.4	7.9	.0	10	.0	11.2
-5	.0	5.6	.0	.0	5	.0	5.6
-6	1.1	2.2	.0	.0	3	.0	3.4
TOTAL	1	14	65	9	89	0	89
PCT	1.1	15.7	73.0	10.1	100.0		100.0

PERIOD: (OVER-ALL) 1963-1965

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N							PCT	NE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
YDT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	E							PCT	SE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
YDT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

PERIOD: (OVER-ALL) 1963-1965

MARCH

AREA 0001 SOUTHEAST SUMAT.  
3.75 101.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	33.3	.0	.0	.0	.0	33.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	33.3	.0	.0	.0	.0	33.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	33.3	.0	.0	.0	33.3	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	33.3	.0	.0	.0	33.3	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	66.7	.0	.0	.0	66.7	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	33.3	.0	.0	.0	.0	33.3	.0
3-4	.0	.0	33.3	.0	.0	.0	33.3	.0
5-6	.0	.0	33.3	.0	.0	.0	33.3	.0
7	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	33.3	66.7	.0	.0	.0	100.0	3

PERIOD: (OVER-ALL) 1949-1965

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
4-6	.0	25.8	16.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	2
6-7	.0	3.2	16.1	3.2	3.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	5
8-9	.0	.0	.0	6.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	4
10-11	.0	.0	3.2	3.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	6
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDEX	9.7	.0	3.2	6.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	2
TOTAL	3	9	12	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	3
PCT	9.7	29.0	38.7	19.4	3.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1893-1967  
(OVER-ALL) 1855-1967

APRIL

AREA 0001 SOUTHEAST SUMATRA  
3.65 101.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	ORZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMDKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	16.0	16.0	.0	.0	.0	.0	.0	32.0	.0	.0	.0	.0	.0	.0	68.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	15.7	.0	.0	.0	.0	84.3
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.1	.0	.0	.0	.0	93.9
S	.0	11.1	.0	.0	.0	.0	.0	11.1	.0	.0	.0	.0	.0	.0	88.9
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
W	17.4	8.7	.0	.0	.0	.0	.0	26.1	.0	.0	.0	.0	.0	.0	73.9
NW	.0	12.1	24.2	.0	.0	.0	.0	36.4	.0	.0	.0	.0	.0	.0	63.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	3.8	5.1	2.6	.0	.0	.0	.0	11.5	.0	3.8	.0	.0	.0	.0	84.6
TOT OBS:	78														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	ORZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMDKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	11.8	5.9	11.8	.0	.0	.0	.0	29.4	.0	.0	.0	.0	.0	.0	70.6
06009	3.7	3.7	.0	.0	.0	.0	.0	7.4	.0	.0	.0	.0	.0	.0	92.6
12015	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.9	.0	.0	.0	.0	94.1
18021	.0	11.1	.0	.0	.0	.0	.0	11.1	.0	11.1	.0	.0	.0	.0	77.8
TOT PCT	3.8	5.1	2.5	.0	.0	.0	.0	11.4	.0	3.8	.0	.0	.0	.0	84.8
TOT OBS:	79														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	2.0	7.2	1.9	.1	.0	.0		11.2	7.3	15.6	.0	10.3	5.2	7.0	7.1	13.2	16.0	
NE	1.4	3.9	.2	.1	.0	.0		5.6	5.7	10.2	.0	3.4	.7	3.8	.0	7.5	8.3	
E	1.8	5.0	.4	*	.0	.0		7.1	5.6	11.9	.0	5.9	1.6	5.1	14.3	8.1	10.5	
SE	2.4	10.5	1.9	*	.0	.0		14.9	6.9	18.7	100.0	14.9	10.5	13.9	42.9	15.3	15.6	
S	2.6	5.5	.9	.0	.0	.0		8.9	5.9	3.5	.0	7.1	16.2	11.2	.0	10.4	4.9	
SW	1.8	4.1	.3	*	.0	.0		6.2	5.6	2.1	.0	5.5	13.0	8.1	14.3	5.5	2.7	
W	1.9	7.1	1.7	.1	*	.0		10.8	7.2	6.1	.0	10.2	18.2	14.3	14.3	8.8	6.5	
NW	3.4	14.2	5.7	.7	*	.0		24.1	8.5	21.8	.0	27.6	28.2	25.1	7.1	19.1	22.8	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	11.3							11.3	.0	9.9	.0	15.0	6.4	11.5	.0	12.2	12.8	
TOT OBS	876	1755	396	31	2	0	3060		6.3	494	1	519	517	514	7	501	507	
TOT PCT	28.6	57.4	12.9	1.0	.1	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+						00	06	12	18	21
N	6.2	4.2	.7	*	.0			11.2	7.3	15.6	7.8	7.0	7.0	14.6	
NE	4.0	1.4	.1	*	.0			5.6	5.7	10.2	2.1	3.7	7.9		
E	5.1	2.0	*	.0	.0			7.1	5.6	11.9	3.8	5.2	9.3		
SE	8.6	5.6	.6	.0	.0			14.9	6.9	18.9	12.7	14.3	15.4		
S	6.0	2.7	.2	.0	.0			8.9	5.9	3.5	11.6	11.0	7.7		
SW	4.3	1.9	*	.0	.0			6.2	5.6	2.1	9.2	8.2	4.1		
W	5.9	4.3	.5	*	*			10.8	7.3	6.1	14.2	14.3	7.6		
NW	10.6	11.2	2.1	.1	*			24.1	8.5	21.8	27.9	24.9	20.9		
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0		
CALM	11.3							11.3	.0	9.9	10.7	11.3	12.5		
TOT OBS	1902	1019	191	7	1	3060			6.3	493	1036	521	1008		
TOT PCT	62.2	33.3	4.3	.2	*			100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1893-1967  
(OVER-ALL) 1855-1967

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	9.9	16.0	61.2	12.7	.2	.0	.0	6.2	100.0	495
06009	10.7	17.7	57.1	13.4	1.0	.1	.0	6.4	100.0	1036
12015	11.3	18.8	53.9	14.4	1.5	.0	.0	6.4	100.0	521
18021	12.5	17.0	57.4	11.8	1.2	.1	.0	6.1	100.0	1008
TOT	345	531	1755	396	31	2	0	6.3		3060
PCT	11.3	17.4	57.4	12.9	1.0	.1	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL CLOUD OBS	MEAN CLOUD COVER
N	.0	1.4	4.7	.0		5.7
NE	.0	.5	2.8	2.8		6.8
E	1.9	3.3	3.8	4.7		5.6
SE	.0	2.4	12.7	3.8		6.5
S	3.3	1.9	5.2	1.9		4.4
SW	.5	.0	2.4	.0		5.1
W	1.4	.0	10.8	7.1		6.7
NW	.5	.0	8.5	2.4		6.7
VAR	.0	.0	.0	.0		.0
CALM	1.9	3.8	1.9	1.9		4.4
TOT OBS	5	7	28	13	53	5.9
TOT PCT	9.4	13.2	52.8	24.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.0	1.4	.0	1.9	.0	.0	.0	2.8	
NE	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	3.3	
E	.0	.0	.0	.0	1.9	2.8	.0	.0	.0	.0	9.0	
SE	.0	.0	.0	.0	.0	1.9	.5	.0	.0	.0	16.5	
S	.0	.0	.0	.0	1.9	.0	1.4	.0	.0	.0	9.0	
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.5	
W	.0	.0	.0	.0	5.7	3.8	1.4	.0	.0	.0	4.7	
NW	.0	.0	.0	1.9	2.4	.0	2.4	.0	.0	.0	7.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	1.9	.0	.0	.0	34	55
TOT OBS	0	0	0	1	8	5	5	0	0	0	64.2	100.0
TOT PCT	.0	.0	.0	1.9	15.1	9.4	9.4	.0	.0	.0		

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NM)	= OR >1	= OR >1/2	= OR >1/4	= OR >30YD	= OR >0
= OR >6500	.0	.0	.0	.0	.0	.0	.0	.0	.0
= OR >5000	.0	.0	.0	.0	.0	.0	.0	.0	.0
= OR >3500	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
= OR >2000	11.1	16.7	15.7	18.5	18.5	18.5	18.5	18.5	18.5
= OR >1000	20.4	29.6	29.6	33.3	33.3	33.3	33.3	33.3	33.3
= OR >600	20.4	31.5	31.5	35.2	35.2	35.2	35.2	35.2	35.2
= OR >300	20.4	31.5	31.5	35.2	35.2	35.2	35.2	35.2	35.2
= OR >150	20.4	31.5	31.5	35.2	35.2	35.2	35.2	35.2	35.2
= OR >0	20.4	31.5	31.5	35.2	35.2	35.2	35.2	35.2	35.2
TOTAL	11	17	17	19	19	19	19	19	19

TOTAL NUMBER OF OBS: 54

PCT FREQ NH <5/8: 64.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
.0	16.1	25.0	12.5	12.5	7.1	8.9	8.9	8.9	.0	56	



PERIOD: (PRIMARY) 1893-1967  
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2.05 101.0E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	1.3	.0	1.3	.0	.0	.0	2.6	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	1.3	.0	1.3	.0	.0	.0	2.6	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5<10	PCP	.0	1.3	.0	.0	.0	1.3	2.6	.0	.0	.0	5.1	
	NO PCP	.0	.6	5.8	1.3	3.2	1.9	3.8	.0	.0	.0	16.7	
	TOT %	.0	1.9	5.8	1.3	3.2	1.9	5.1	2.6	.0	.0	21.8	
10+	PCP	.0	1.3	.0	.0	.0	1.3	1.3	.0	.0	.0	3.8	
	NO PCP	6.1	4.8	10.6	19.9	7.1	3.2	7.1	6.7	.0	6.4	71.8	
	TOT %	6.1	6.1	10.6	19.9	7.1	3.2	8.3	8.0	.0	6.4	75.6	
TOT OBS													78
TOT PCT		6.1	8.0	16.3	21.2	11.5	5.1	14.7	10.6	.0	6.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	TOT %	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	
	TOT %	.0	.0	.0	.0	.2	.0	.1	.1	.0	.0	.3	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.0	.0	.0	.2	.2	.2	.2	.0	.0	.8	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.0	.2	.2	.2	.2	.0	.0	.8	
2<5	0-3	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	
	4-10	.1	.4	.1	.1	.0	.0	.2	.0	.0	.0	.8	
	11-21	.1	.0	.0	.0	.0	.0	.0	.4	.0	.0	.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.4	.2	.1	.0	.0	.2	.4	.0	.0	1.4	
5<10	0-3	.2	.0	.2	.2	.2	.2	.1	.1	.0	.3	1.5	
	4-10	.3	.4	1.1	.8	.5	.4	.7	1.2	.0	.0	5.3	
	11-21	.2	.0	.0	.0	.0	.2	.5	1.0	.0	.0	1.9	
	22+	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5	
	TOT %	.7	.4	1.2	1.0	.7	.9	1.2	2.7	.0	.3	9.1	
10+	0-3	2.1	2.1	2.0	3.1	1.8	2.6	1.3	2.7	.0	7.1	24.7	
	4-10	5.8	4.5	4.9	10.9	4.8	2.7	5.4	12.8	.0	.0	51.8	
	11-21	1.4	.0	.2	1.9	.4	.2	1.0	6.3	.0	.0	11.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3	
	TOT %	9.2	6.6	7.1	15.8	7.0	5.5	7.8	22.1	.0	7.1	88.3	
TOT OBS													647
TOT PCT		10.2	7.4	8.6	16.9	8.0	6.5	9.4	25.5	.0	7.4	100.0	

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PERIOD: (PRIMARY) 1893-1967  
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 7499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	6.3	12.5	6.3	6.3	.0	.0	.0	31.3	68.8	16
06009	.0	.0	.0	.0	16.7	16.7	11.1	.0	.0	.0	44.4	55.6	18
12015	.0	.0	.0	.0	9.1	9.1	9.1	.0	.0	.0	27.3	72.7	11
18021	.0	.0	.0	.0	18.2	.0	9.1	.0	.0	.0	27.3	72.7	11
TOT	0	0	0	1	8	5	5	0	0	0	19	37	56
PCT	.0	.0	.0	1.8	14.3	8.9	8.9	.0	.0	.0	33.5	66.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	2.9	1.9	5.7	89.5	105
06009	.5	.0	.0	.0	7.2	92.3	209
12015	.0	.8	.0	1.7	12.7	84.7	118
18021	.0	.5	.9	2.3	10.6	85.6	216
TOT	1	2	5	9	59	572	648
PCT	.2	.3	.8	1.4	9.1	88.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	13.3	20.0	66.7	15
06009	.0	.0	.0	44.4	55.6	18
12015	.0	.0	.0	30.0	70.0	10
18021	.0	.0	9.1	18.2	72.7	11
TOT	0	0	3	16	35	54
PCT	.0	.0	5.6	29.6	64.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	.0	.0	2.3	.0	.0	1	2.3
90/94	.0	.0	.0	.0	1.3	.0	.0	.0	1	2.3
85/89	.0	.0	.0	.0	.0	9.1	2.3	.0	5	11.4
80/84	.0	.0	.0	.0	2.3	29.5	45.5	.0	34	77.3
75/79	.0	.0	.0	.0	.0	2.3	2.3	2.3	3	6.8
TOTAL	0	0	0	0	2	19	22	1	44	100.0
PCT	.0	.0	.0	.0	4.5	43.2	50.0	2.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3
90/94	1.7	.6	.0	.0	.0	.0	.0	.0	.0	.0
85/89	.0	.0	4.0	2.8	2.3	2.3	.0	.0	.0	.0
80/84	1.7	4.5	10.2	21.0	5.1	.6	21.0	6.3	.0	6.8
75/79	.0	2.3	.0	.0	.0	.0	2.3	2.3	.0	.0
TOTAL	3.4	7.4	14.2	23.9	7.4	2.8	23.3	8.5	.0	9.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	94	87	86	82	77	75	73	81.6	491
06009	97	90	88	84	80	77	72	83.9	1015
12015	92	88	86	83	79	77	74	82.7	512
18021	90	86	85	81	77	75	72	81.1	992
TOT	97	89	87	82	78	76	72	82.4	3010

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	25.0	66.7	8.3	83	12
06009	.0	.0	6.7	53.3	40.0	.0	78	15
12015	.0	.0	10.0	60.0	30.0	.0	78	10
18021	.0	.0	.0	37.5	62.5	.0	80	8
TOT	0	0	2	20	22	1	80	45

PERIOD: (PRIMARY) 1893-1967  
(OVER-ALL) 1893-1967

APRIL

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	77 80	81 84	85 88	89 92	TOT	N FOG	WD FOG
4	.0	.0	.0	1.4	1	.0	1.4
2	.0	.0	1.4	.0	1	.0	1.4
1	.0	2.8	2.8	.0	4	.0	5.6
0	.0	19.4	2.8	.0	16	.0	22.2
-1	.0	22.2	.0	.0	16	.0	22.2
-2	.0	18.1	.0	.0	13	.0	18.1
-3	2.8	4.2	.0	.0	5	.0	6.9
-4	5.6	13.9	.0	.0	14	.0	19.4
-5	1.4	.0	.0	.0	1	.0	1.4
-6	1.4	.0	.0	.0	1	.0	1.4
TOTAL	8	5	5	1	72	0	72
PCT	11.1	80.6	6.9	1.4	100.0		100.0

PERIOD: (OVER-ALL) 1963-1967

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	25.0	.0	.0	.0	.0	25.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	25.0	50.0	.0	.0	.0	75.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	50.0	50.0	.0	.0	.0	100.0

PERIOD: (OVER-ALL) 1963-1967

APRIL

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	25.0	.0	.0	.0	.0	25.0	.0
3-4	.0	25.0	50.0	.0	.0	.0	75.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	50.0	50.0	.0	.0	.0	100.0	.0

PERIOD: (OVER-ALL) 1949-1967

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	19.2	9.6	1.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16	3
6-7	.0	11.5	9.6	1.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12	3
8-9	.0	.0	9.6	5.8	1.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	4
10-11	.0	.0	.0	5.8	3.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	6
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDBY	1.9	5.8	.0	11.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10	4
TOTAL	1	19	15	14	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	3
PCT	1.9	38.3	28.8	26.9	5.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1892-1968  
(OVER-ALL) 1857-1968

MAY

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3.6S 101.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	ORZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA		
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0		
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0		
E	15.4	.0	.0	.0	.0	.0	.0	15.4	.0	.0	.0	.0	.0	.0	84.6		
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.5	10.5	78.9		
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0		
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0		
W	14.3	.0	.0	.0	.0	.0	.0	14.3	.0	.0	.0	.0	.0	.0	85.7		
NW	12.9	12.9	.0	.0	.0	.0	.0	25.8	.0	.0	.0	.0	.0	.0	74.2		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0		
TOT PCT	6.0	2.0	.0	.0	.0	.0	.0	8.0	.0	.0	.0	.0	2.0	2.0	88.0		
TOT OBS:	50																

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	ORZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA		
00Z03	11.8	.0	.0	.0	.0	.0	.0	11.8	.0	.0	.0	.0	.0	5.9	82.4		
06Z09	.0	5.6	.0	.0	.0	.0	.0	5.6	.0	.0	.0	.0	5.6	.0	88.9		
12Z15	10.0	.0	.0	.0	.0	.0	.0	10.0	.0	.0	.0	.0	.0	.0	90.0		
18Z21	.0	12.5	12.5	.0	.0	.0	.0	25.0	.0	.0	.0	.0	.0	.0	75.0		
TOT PCT	5.7	3.8	1.9	.0	.0	.0	.0	11.3	.0	.0	.0	.0	1.9	1.9	84.9		
TOT OBS:	53																

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47							00	03	06	09	12	15	18	21
N	2.0	5.7	1.5	.1	.0	.0	.0		9.3	7.0	14.8	.0	10.0	3.1	4.3	.0	10.8	12.6	
NE	1.6	4.4	.5	.0	.0	.0	.0		6.5	5.7	11.8	.0	3.4	1.3	3.2	.0	8.6	10.6	
E	1.6	6.6	1.2	.1	.0	.0	.0		9.5	7.0	13.8	.0	8.8	3.0	5.7	.0	10.4	14.4	
SE	3.4	13.1	4.7	.4	.0	.0	.0		21.6	8.0	21.2	.0	23.0	19.7	21.5	.0	23.5	20.8	
S	2.3	6.7	1.0	.1	.0	.0	.0		10.1	6.3	5.5	.0	8.9	18.2	14.1	100.0	8.4	5.5	
SW	1.4	4.2	.2	.1	.0	.0	.0		5.9	5.9	3.2	.0	4.6	12.0	8.4	.0	4.6	2.8	
W	2.4	5.1	1.4	.1	.0	.0	.0		9.0	6.9	4.7	.0	8.6	16.7	13.0	.0	6.6	4.4	
NW	2.8	10.0	3.3	.6	.1	.0	.0		17.2	8.4	16.6	.0	18.4	18.6	18.6	.0	14.0	16.9	
VAR	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	11.0								11.0	.0	8.3	.0	14.2	6.6	11.2	.0	13.2	12.0	
TOT OBS	905	1772	493	46	2	0	3178			6.5	539	0	555	515	526	1	516	526	
TOT PCT	28.5	55.8	14.3	1.4	.1	.0			100.0		100.0	.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40						00	03	06	12	18
N	5.3	3.6	.5	.0	.0		9.3	7.0	14.8	6.7	4.3	11.7		
NE	4.5	1.9	.1	.0	.0		6.5	5.7	11.8	2.4	3.2	9.6		
E	5.5	3.5	.5	.0	.0		9.5	7.0	13.8	6.4	5.7	12.4		
SE	10.5	9.4	1.7	.0	.0		21.6	8.0	21.2	21.4	21.4	22.1		
S	6.6	3.2	.3	.0	.0		10.1	6.3	5.5	13.3	14.2	7.0		
SW	4.0	1.8	.1	.0	.0		5.9	5.9	3.2	8.2	8.3			
W	5.1	3.4	.4	.0	.0		9.0	6.9	4.7	12.5		5.5		
NW	8.3	6.9	1.8	.2	.0		17.2	8.4	16.6	18.6	18.6	15.5		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	11.0						11.0	.0	8.3	10.6	11.2	12.6		
TOT OBS	1934	1070	166	8	0	3178		6.5	539	1070	527	1042		
TOT PCT	60.9	33.7	5.2	.3	.0		100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1892-1968  
(OVER-ALL) 1857-1968

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOURL	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	8.3	16.5	61.0	13.0	1.1	.0	.0	6.4	100.0	939
06009	10.6	17.4	56.6	13.8	1.5	.1	.0	6.5	100.0	1070
12015	11.2	16.1	55.6	15.6	1.3	.2	.0	6.6	100.0	927
18021	12.6	18.9	52.2	14.7	1.6	.0	.0	6.3	100.0	1042
TOT	348	557	1772	453	46	2	0	6.5		3178
PCT	11.0	17.5	55.8	14.3	1.4	.1	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL CLOUD COVER	MEAN CLOUD COVER
N	.0	8.9	3.2	.0		4.2
NE	.0	.0	3.2	.0		6.0
E	1.6	3.9	3.2	2.4		4.3
SE	3.2	10.5	6.5	.8		4.0
S	4.8	3.2	2.4	.0		2.5
SW	.0	.0	.8	.0		7.0
W	.0	6.5	8.1	3.2		5.0
NW	3.2	.8	4.8	6.5		5.3
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	3.2	.0		5.0
TOT OBS	4	12	11	4	31	4.4
TOT PCT	12.9	38.7	35.5	12.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT.) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000 149	150 290	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.2	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18.1	
.0	3.2	.0	.0	.0	3.2	.0	.0	.0	.0	14.5	
.0	.0	.0	.0	2.4	.0	.0	.0	.0	.0	8.1	
.0	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	
.0	.0	3.2	3.2	.0	.0	.0	.0	.0	.0	11.3	
.0	.0	.0	.0	.0	3.2	.0	.0	.0	.0	12.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.2	
.0	1	1	1	1	2	0	0	0	0	25	31
.0	3.2	3.2	3.2	3.2	6.5	.0	.0	.0	.0	80.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	* OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.0	.0	.0	.0	.0	.0	.0	.0
* OR >5000	.0	.0	.0	.0	.0	.0	.0	.0
* OR >3500	.0	.0	.0	.0	.0	.0	.0	.0
* OR >2000	3.1	3.1	6.3	6.3	6.3	6.3	6.3	6.3
* OR >1000	6.3	6.3	9.4	9.4	9.4	9.4	9.4	9.4
* OR >600	12.5	12.5	15.6	15.6	15.6	15.6	15.6	15.6
* OR >300	12.5	12.5	18.8	18.8	18.8	18.8	18.8	18.8
* OR >150	12.5	15.6	21.9	21.9	21.9	21.9	21.9	21.9
* OR >0	12.5	15.6	21.9	21.9	21.9	21.9	21.9	21.9
TOTAL	4	5	7	7	7	7	7	7

TOTAL NUMBER OF OBS: 32

PCT FREQ NH <5/8: 78.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
6.1	15.2	27.3	18.2	9.1	9.1	6.1	.0	9.1	.0	33

PERIOD: (PRIMARY) 1892-1968  
(OVER-ALL) 1857-1968

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	2.0	
	NO PCP	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	2.0	
	TOT %	.0	.0	2.0	2.0	.0	.0	.0	.0	.0	.0	4.0	
2<5	PCP	.0	.0	.0	.0	.0	.0	2.0	2.0	.0	.0	4.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	2.0	2.0	.0	.0	4.0	
5<10	PCP	.0	.0	.0	.0	.0	.0	.0	2.0	.0	.0	2.0	
	NO PCP	4.0	2.0	.0	4.0	1.0	3.0	2.0	2.0	.0	2.0	20.0	
	TOT %	4.0	2.0	.0	4.0	1.0	3.0	2.0	4.0	.0	2.0	22.0	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	12.5	1.0	11.0	13.0	8.5	.5	10.0	9.5	.0	4.0	70.0	
	TOT %	12.5	1.0	11.0	13.0	8.5	.5	10.0	9.5	.0	4.0	70.0	
TOT OBS													
TOT PCT		16.5	3.0	13.0	19.0	9.5	3.5	14.0	13.5	.0	6.0	100.0	50

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	4-10	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.2	.0	.0	.0	.1	.0	.0	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.0	.0	.0	.1	.2	.0	.0	.3	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.2	.3	.0	.0	.0	.0	.0	.0	.5	
	11-21	.0	.0	.1	.1	.0	.0	.1	.2	.0	.0	.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.2	.4	.0	.0	.1	.2	.0	.0	.9	
2<5	0-3	.1	.0	.0	.0	.0	.0	.0	.2	.0	.0	.3	
	4-10	.2	.1	.1	.1	.1	.1	.3	.5	.0	.0	1.4	
	11-21	.1	.0	.1	.2	.1	.0	.2	.7	.0	.0	1.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.4	.1	.2	.2	.2	.1	.5	1.4	.0	.0	2.9	
5<10	0-3	.5	.2	.0	.2	.0	.2	.2	.3	.0	.5	1.8	
	4-10	.5	.1	.0	.5	.2	.4	.7	.9	.0	.0	3.3	
	11-21	.1	.0	.0	1.4	.2	.0	.0	.2	.0	.0	1.8	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	1.1	.2	.0	2.0	.4	.5	.8	1.4	.0	.5	6.9	
10+	0-3	1.7	1.2	2.6	3.7	1.9	1.5	1.6	1.6	.0	6.6	22.4	
	4-10	5.8	4.8	7.9	15.3	6.8	4.6	5.5	7.3	.0	.0	58.0	
	11-21	.9	.0	.5	2.3	.5	.1	.5	2.6	.0	.0	7.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	8.4	6.0	11.1	22.2	9.1	6.2	7.6	11.5	.0	6.6	88.7	
TOT OBS													
TOT PCT		10.0	6.3	11.4	25.0	9.7	6.8	9.0	14.8	.0	7.1	100.0	665

MAY

PERIOD: (PRIMARY) 1892-1968  
(OVER-ALL) 1857-1968AREA 0001 SOUTHEAST SUMATRA  
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH < 5/8 ANY HGT	TOTAL OBS
00003	.0	8.3	8.3	.0	.0	8.3	.0	.0	.0	.0	25.0	75.0	12
06009	.0	.0	.0	8.3	.0	8.3	.0	.0	.0	.0	16.7	83.3	12
12015	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	4
18021	.0	.0	.0	25.0	25.0	.0	.0	.0	.0	.0	50.0	50.0	4
TOT	0	1	1	2	1	2	0	0	0	0	7	25	32
PCT	.0	3.1	3.1	6.3	3.1	6.3	.0	.0	.0	.0	21.9	78.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.9	3.5	10.5	85.1	114
06009	.0	.0	.5	1.4	5.0	93.2	222
12015	.0	.0	1.7	4.3	8.5	85.3	116
18021	.9	.9	.9	3.2	6.9	87.0	216
TOT	2	2	6	19	48	591	668
PCT	.3	.3	.9	2.8	7.2	88.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET, NH > 4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL OBS
00003	.0	16.7	16.7	8.3	75.0	12
06009	.0	.0	16.7	.0	83.3	12
12015	.0	.0	.0	.0	100.0	4
18021	.0	.0	25.0	25.0	50.0	4
TOT	0	2	5	2	25	32
PCT	.0	6.3	15.6	6.3	78.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.0	7.7	3.8	3.8	4	15.4
80/84	.0	.0	.0	.0	7.7	23.1	30.8	7.7	18	49.2
75/79	.0	.0	.0	.0	.0	.0	3.8	11.5	4	15.4
TOTAL	0	0	0	0	2	8	10	6	26	100.0
PCT	.0	.0	.0	.0	7.7	30.8	38.5	23.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	6.7	8.7	.0	.0	.0	.0	.0	.0
6.7	.0	.0	9.6	21.2	1.9	1.9	11.5	8.7	.0	7.7
.0	.0	.0	.0	.0	.0	.0	9.6	5.8	.0	.0
6.7	.0	.0	16.3	29.8	1.9	1.9	21.2	14.4	.0	7.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00003	89	88	86	82	78	75	74	82.1	531
06009	93	89	88	84	80	77	75	84.0	1037
12015	90	88	86	83	79	76	75	82.9	515
18021	89	87	85	82	78	76	74	81.6	1020
TOT	93	88	87	83	78	76	74	82.7	3103

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	8.3	66.7	25.0	86	12
06009	.0	.0	10.0	40.0	20.0	30.0	83	10
12015	.0	.0	.0	66.7	33.3	.0	78	3
18021	.0	.0	25.0	25.0	50.0	.0	79	4
TOT	0	0	2	8	13	6	83	29



PERIOD: (PRIMARY) 1892-1968  
(OVER-ALL) 1857-1968

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
3	.0	.0	2.2	.0	1	.0	2.2
2	.0	.0	.0	2.2	1	.0	2.2
1	.0	4.4	2.2	.0	3	.0	6.7
0	.0	15.6	4.4	.0	9	.0	20.0
-1	.0	15.6	2.2	.0	8	.0	17.8
-2	.0	15.6	4.4	.0	9	.0	20.0
-3	.0	4.4	.0	.0	2	.0	4.4
-4	11.1	11.1	.0	.0	10	.0	22.2
-5	.0	2.2	.0	.0	1	.0	2.2
-7/-8	2.2	.0	.0	.0	1	.0	2.2
TOTAL	6	31	7	1	45	0	45
PCT	13.3	68.9	15.6	2.2	100.0		100.0

PERIOD: (OVER-ALL) 1963-1968

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.0	.0	.0	.0	.0	.0	.0	100.0	.0	.0	.0	.0	.0	100.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	100.0	.0	.0	.0	.0	.0	100.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

PERIOD: (OVER-ALL) 1963-1968

WAV

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	100.0	.0	.0	.0	.0	.0	.0	100.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	100.0	.0	.0	.0	.0	.0	100.0	1

PERIOD: (OVER-ALL) 1949-1968

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	24.0	16.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10
6-7	.0	4.0	20.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7
8-9	.0	.0	4.0	8.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4
10-11	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
INDET	8.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3
TOTAL	2	7	12	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
PCT	8.0	28.0	48.0	8.0	8.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1892-1969  
(OVER-ALL) 1855-1969

JUNE

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZG PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG NO PCPN	FGG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	12.1	9.1	.0	.0	.0	.0	.0	21.2	21.2	.0	.0	.0	.0	57.6
SE	19.1	1.6	.0	.0	.0	.0	.0	14.8	8.2	13.1	.0	.0	.0	70.5
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	7.5	2.5	.0	.0	.0	.0	.0	10.0	7.5	5.0	.0	.0	.0	80.0
TOT OBS:	40													

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZG PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG NO PCPN	FGG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
0700	7.1	7.1	.0	.0	.0	.0	.0	14.3	21.4	14.3	.0	.0	.0	57.1
0800	7.1	.0	.0	.0	.0	.0	.0	7.1	.0	.0	.0	.0	.0	92.9
1200	12.5	.0	.0	.0	.0	.0	.0	12.5	.0	.0	.0	.0	.0	87.5
1800	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	7.1	2.4	.0	.0	.0	.0	.0	9.5	7.1	4.8	.0	.0	.0	81.0
TOT OBS:	42													

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FRFQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21	
N	1.7	5.4	1.2	.2	.0	.0		8.5	7.3	12.1	.0	7.8	2.9	5.6	.0	9.7	12.7	
NE	1.4	4.3	.9	.0	.0	.0		6.3	6.1	10.9	.0	3.0	1.6	3.6	.0	7.8	10.3	
E	2.8	6.9	1.1	.1	.0	.0		11.0	6.3	17.6	75.0	11.8	4.3	6.7	100.0	10.8	13.9	
SE	3.7	17.5	7.3	.8	.0	.0		29.4	8.7	28.4	25.0	32.1	29.3	30.8	.0	28.6	26.9	
S	2.3	4.7	1.9	.2	.0	.0		10.6	7.1	5.6	.0	9.1	19.3	13.5	.0	9.9	7.0	
SW	1.2	3.0	.8	.0	.0	.0		4.7	6.1	2.7	.0	4.0	10.0	5.3	.0	3.5	3.2	
W	1.3	3.7	1.1	.2	.0	.0		6.4	7.5	3.4	.0	5.2	12.7	8.2	.0	5.2	3.9	
NW	2.2	7.9	3.4	.3	.0	.0		13.9	8.4	12.2	.0	15.3	14.0	14.5	.0	13.3	14.0	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	9.3							9.3	.0	6.9	.0	11.6	5.9	11.7	.0	11.3	8.2	
TOT OBS	798	1710	515	55	0	0	3078		6.9	520	1	524	490	497	1	520	525	
TOT PCT	25.9	55.6	16.7	1.8	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FRFQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	4.6	3.4	.0	.0	.0		8.5	7.3	12.1	5.4	5.6	11.2	
NE	4.1	2.0	.1	.0	.0		6.3	6.1	10.8	2.3	3.6	9.0	
E	6.8	3.8	.3	.0	.0		11.0	6.3	17.7	8.2	6.9	12.3	
SE	11.9	14.6	2.8	.0	.0		29.4	8.7	28.6	30.8	30.7	27.7	
S	5.7	4.4	.5	.0	.0		10.6	7.1	5.6	14.1	13.5	8.4	
SW	3.2	1.4	.1	.0	.0		4.7	6.1	2.7	6.9	5.3	3.3	
W	3.5	2.4	.4	.0	.0		6.4	7.5	3.4	8.8	8.2	4.5	
NW	6.5	5.8	1.6	.0	.0		13.9	8.4	12.2	14.6	14.5	13.6	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	9.3						9.3	.0	6.9	8.9	11.6	9.8	
TOT OBS	1711	1165	198	4	0	3078		6.9	521	1.14	498	1045	
TOT PCT	55.6	37.8	6.4	.1	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1892-1969  
(OVER-ALL) 1855-1969

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT	TOTAL
									FREQ	OBS
00003	6.9	17.7	59.9	13.6	1.9	.0	.0	6.9	100.0	521
06009	8.9	18.2	55.4	15.9	1.6	.0	.0	8.9	100.0	1014
12015	11.6	14.9	52.8	19.1	1.6	.0	.0	7.0	100.0	498
18021	9.8	15.4	54.8	18.0	2.0	.0	.0	7.1	100.0	1045
TOT	28.6	51.2	171.0	51.5	5.5	.0	.0	6.9		3078
PCT	9.3	16.6	55.6	16.7	1.8	.0	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	2.8	.0	.0	4.0	4.0
NE	.0	.0	4.5	.0	6.5	6.5
E	1.9	1.9	6.5	6.5	5.7	5.7
SE	1.9	16.7	14.8	5.6	4.8	4.8
S	.0	.0	.0	2.8	8.0	8.0
SW	.0	.0	3.7	.0	5.0	5.0
W	3.7	.0	5.7	.0	3.5	3.5
NW	3.7	.9	11.1	.0	5.4	5.4
VAR	.0	.0	.0	.0	.0	.0
CALM	.0	3.7	.0	3.7	5.5	5.5
TOT OBS	3	7	12	5	27	5.1
TOT PCT	11.1	25.9	44.4	18.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/R  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.8	
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.6	
E	.0	.0	.0	.0	6.5	.0	.0	.0	.0	.0	10.2	
SE	.0	.0	.0	.0	4.6	.9	.0	.0	.0	.0	33.3	
S	.0	.0	.0	.0	.0	2.8	.0	.0	.0	.0	.0	
SW	.0	.0	.0	.0	.0	3.7	.0	.0	.0	.0	.0	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.4	
NW	.0	.0	.0	.0	7.4	.0	.0	.0	.0	.0	5.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	3.7	.0	.0	.0	.0	.0	.0	3.7	
TOT OBS	3	7	12	5	27	5.1						
TOT PCT	11.1	25.9	44.4	18.5	100.0							

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/R) AND VSBY (NM)

CEILING (FEET)	< OR >10	< OR >5	< OR >2	VSBY (NM) < OR >1	< OR >1/2	< OR >1/4	< OR >50YD	< OR >0
< OR >400	.0	.0	.0	.0	.0	.0	.0	.0
< OR >500	.0	.0	.0	.0	.0	.0	.0	.0
< OR >3500	.0	.0	.0	.0	.0	.0	.0	.0
< OR >2000	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
< OR >1000	21.4	25.0	25.0	25.0	25.0	25.0	25.0	25.0
< OR >600	25.0	28.6	28.6	28.6	28.6	28.6	28.6	28.6
< OR >300	25.0	28.6	28.6	28.6	28.6	28.6	28.6	28.6
< OR >150	25.0	28.6	28.6	28.6	28.6	28.6	28.6	28.6
< OR >0	25.0	28.6	28.6	28.6	28.6	28.6	28.6	28.6
TOTAL	7	8	8	8	8	8	8	8

TOTAL NUMBER OF OBS: 28

PCT FREQ NH <5/8: 71.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	10.0	10.0	16.7	30.0	3.3	10.0	3.3	.0	16.7	.0	30

PERIOD: (PRIMARY) 1892-1969  
(OVER-ALL) 1855-1969

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	ND PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	ND PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	ND PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	4.5	.6	.0	.0	.0	.0	.0	.0	.0	5.1
	ND PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	4.5	.6	.0	.0	.0	.0	.0	.0	.0	5.1
5<10	PCP	.0	.0	.0	5.1	.0	.0	.0	.0	.0	.0	.0	5.1
	ND PCP	.0	.0	5.1	6.4	6.4	.0	.0	.0	.0	.0	.0	17.9
	TOT %	.0	.0	5.1	11.5	6.4	.0	.0	.0	.0	.0	.0	23.1
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	ND PCP	1.9	5.8	11.5	26.9	4.5	2.6	2.6	10.9	.0	5.1	71.8	
	TOT %	1.9	5.8	11.5	26.9	4.5	2.6	2.6	10.9	.0	5.1	71.8	
TOT OBS													
TOT PCT													
		1.9	5.8	21.2	39.1	10.9	2.6	2.6	10.9	.0	5.1	100.0	39

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.3
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.3
2<5	0-3	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2
	4-10	.0	.0	.2	.3	.1	.0	.0	.2	.0	.0	.0	.7
	11-21	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.3	.3	.1	.0	.0	.2	.0	.0	.0	1.0
5<10	0-3	.2	.0	.0	.2	.0	.0	.3	.1	.0	.2	.0	.8
	4-10	.6	.6	.8	1.5	1.0	.0	.3	.0	.0	.0	.0	4.9
	11-21	.0	.0	.2	.5	.7	.0	.3	.1	.0	.0	.0	1.7
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.8	.6	1.0	2.2	1.7	.0	.5	.5	.0	.2	.0	7.4
10+	0-3	1.0	1.6	2.5	3.4	2.2	.8	2.4	1.3	.0	7.1	22.2	
	4-10	5.5	4.1	5.9	18.7	8.1	2.6	2.3	6.2	.0	.0	59.4	
	11-21	1.1	.2	.7	9.3	.8	.0	.2	2.9	.0	.0	15.1	
	22+	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.5	
	TOT %	7.6	5.8	9.1	31.9	11.1	3.4	4.9	10.3	.0	7.1	91.3	
TOT OBS													
TOT PCT													
		8.5	6.4	10.5	34.4	12.9	3.6	5.4	11.0	.0	7.2	100.0	595

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PERIOD: (PRIMARY) 1892-1969  
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	.0	38.5	.0	.0	.0	.0	.0	38.5	61.5	13
06009	.0	.0	.0	.0	.0	25.0	.0	.0	.0	.0	25.0	75.0	8
12015	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	5
18021	.0	.0	.0	33.3	.0	.0	.0	.0	.0	.0	33.3	66.7	3
TOT	0	0	0	1	5	2	0	0	0	0	8	21	29
PCT	.0	.0	.0	3.4	17.2	6.9	.0	.0	.0	.0	27.6	72.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	1.7	9.6	88.7	115
06009	.0	.0	.0	.0	5.3	94.7	187
12015	.0	.0	.0	2.9	5.8	91.3	104
18021	.5	.0	1.0	.5	8.9	89.0	191
TOT	1	0	2	6	44	544	597
PCT	.2	.0	.3	1.0	7.4	91.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	.0	38.5	61.5	13
06009	.0	.0	.0	25.0	75.0	8
12015	.0	.0	.0	.0	100.0	5
18021	.0	50.0	100.0	.0	.0	2
TOT	0	1	2	7	19	28
PCT	.0	3.6	7.1	25.0	67.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	8.3	8.3	.0	.0	4	16.7
80/84	.0	.0	.0	.0	.0	29.2	37.5	.0	18	46.7
75/79	.0	.0	.0	.0	.0	.0	12.5	4.2	4	16.7
TOTAL	0	0	0	0	2	9	12	1	24	100.0
PCT	.0	.0	.0	.0	8.3	37.5	50.0	4.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	12.5	.0	4.2	.0	.0	.0	.0
80/84	3.1	1.0	13.5	24.0	11.5	.0	.0	13.5	.0	.0
75/79	.0	4.2	6.3	2.1	.0	.0	.0	.0	.0	4.2
TOTAL	3.1	5.2	19.8	38.5	11.5	4.2	.0	13.5	.0	4.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	89	87	85	82	78	76	72	81.6	516
06009	95	91	88	83	79	77	74	83.7	1002
12015	89	87	86	83	78	76	73	82.5	493
18021	90	87	85	81	77	76	74	81.2	1034
TOT	95	89	86	82	78	76	72	82.3	3045

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	20.0	70.0	10.0	84	10
06009	.0	.0	16.7	66.7	16.7	.0	74	6
12015	.0	.0	16.7	66.7	16.7	.0	75	5
18021	.0	.0	.0	.0	100.0	.0	86	3
TOT	0	0	2	10	12	1	79	25

PERIOD: (PRIMARY) 1892-1969  
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	77 80	81 84	85 88	TOT	N FOG	WD FOG
6	.0	.0	2.9	1	.0	2.9
2	.0	.0	5.7	2	.0	5.7
1	.0	.0	5.7	2	.0	5.7
0	.0	8.6	2.9	4	.0	11.4
-1	2.9	22.9	2.9	10	.0	28.6
-2	2.9	20.0	.0	8	.0	22.9
-3	.0	8.6	.0	3	.0	8.6
-4	5.7	.0	.0	2	.0	5.7
-5	2.9	2.9	.0	2	.0	5.7
-7/-8	2.9	.0	.0	1	.0	2.9
TOTAL	6	22	7	35	0	35
PCT	17.1	62.9	20.0	100.0		100.0

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	.0	.0	.0	20.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	25.0	.0	.0	.0	.0	25.0
5-6	.0	.0	15.0	.0	.0	.0	15.0	.0	.0	5.0	.0	.0	.0	5.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	15.0	.0	.0	.0	15.0	.0	45.0	5.0	.0	.0	.0	50.0
TOT PCT	.0	.0	15.0	.0	.0	.0	15.0	.0	45.0	5.0	.0	.0	.0	50.0

PERIOD: (OVER-ALL) 1963-1969

JUNE

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3.65 101.7E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	15.0	.0	.0	.0	.0	15.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	15.0	.0	.0	.0	.0	15.0	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	20.0	.0	.0	.0	20.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	20.0	.0	.0	.0	20.0	.0	.0	.0	.0	.0	.0	.0	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	.0	.0	.0	.0	.0	.0	.0	0.0
1-2	.0	20.0	20.0	.0	.0	.0	40.0	40.0
3-4	.0	40.0	.0	.0	.0	.0	40.0	40.0
5-6	.0	.0	20.0	.0	.0	.0	20.0	20.0
7	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	60.0	40.0	.0	.0	.0	100.0	5

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT -FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD [SEC]	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
<6	.0	3.8	7.7	3.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	3
6-7	.0	.0	19.2	3.8	7.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	4
8-9	.0	.0	3.8	7.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	4
10-11	.0	.0	.0	11.5	7.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	6
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0
INDEX	.0	11.5	3.8	3.8	3.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	4
TOTAL	.0	4	9	8	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	4
PCT	.0	15.4	24.6	30.8	19.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	



PERIOD: (PRIMARY) 1891-1969  
(OVER-ALL) 1854-1969

JULY

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3.85 101.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAZ	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	50.0	.0	.0	.0	.0	.0	50.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	50.0	.0	.0	.0	.0	.0	50.0
E	.0	17.4	.0	.0	.0	.0	.0	17.4	.0	8.7	.0	.0	.0	.0	73.9
SE	3.2	6.4	6.4	.0	.0	.0	.0	16.0	.0	6.4	.0	.0	.0	.0	77.6
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NW	33.3	.0	.0	.0	.0	.0	.0	33.3	.0	.0	.0	.0	.0	.0	66.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	4.7	6.3	3.1	.0	.0	.0	.0	14.1	4.7	4.7	.0	.0	.0	.0	76.6
TOT OBS:	64														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAZ	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
0603	4.8	2.3	.0	.0	.0	.0	.0	14.3	.0	9.5	.0	.0	.0	.0	76.2
0809	3.0	3.0	.0	.0	.0	.0	.0	10.0	10.0	.0	.0	.0	.0	.0	80.0
12019	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.1	.0	.0	.0	.0	88.9
18621	6.7	6.7	13.3	.0	.0	.0	.0	26.7	6.7	.0	.0	.0	.0	.0	66.7
TOT PCT	4.6	6.2	3.1	.0	.0	.0	.0	13.8	4.6	4.6	.0	.0	.0	.0	76.9
TOT OBS:	65														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.4	3.6	1.8	.1	.0	.0		8.7	7.7		11.9	33.3	7.3	4.0	5.2	.0	10.6	12.5
NE	1.3	4.6	.6	.8	.0	.0		6.3	6.4		11.6	.0	4.9	2.1	4.7	.0	6.9	9.0
E	1.6	3.9	2.2	.2	.0	.0		9.9	8.0		14.4	.0	10.6	3.8	5.2	50.0	10.0	14.8
SE	3.3	19.0	10.8	1.1	.0	.0		34.2	9.4		34.7	33.3	38.5	34.3	33.1	50.0	34.6	31.9
S	1.4	6.8	1.8	.1	.0	.0		10.1	7.6		4.9	.0	8.0	18.7	14.2	.0	9.0	6.4
SW	.8	2.9	.4	.8	.0	.0		4.1	6.4		1.9	33.3	4.3	8.0	5.1	.0	2.6	2.7
W	1.1	3.2	.7	.1	.0	.0		5.2	7.2		3.7	.0	3.0	9.1	7.2	.0	3.3	2.8
NW	1.8	7.2	3.4	.4	.0	.0		12.8	8.9		11.7	.0	13.4	13.9	13.9	.0	11.2	13.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	8.5							8.5	.0		5.3	.0	9.9	6.3	11.3	.0	11.9	6.8
TOT OBS	448	1680	684	61	2	0	3045		7.6		531	3	526	489	497	1	496	502
TOT PCT	21.3	99.2	21.5	2.0	.1	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	03	09	15
N	4.1	4.0	.5	.8	.0			8.7	7.7		12.0	5.7	5.2	11.6
NE	4.3	2.3	.1	.0	.0			6.6	6.4		11.5	3.6	4.7	7.9
E	4.7	4.3	.6	.0	.0			9.9	8.0		14.3	7.2	5.3	12.4
SE	12.1	17.8	4.2	.8	.0			34.2	9.4		34.7	35.4	33.2	33.2
S	5.1	4.5	.4	.8	.0			10.1	7.6		4.9	12.2	14.2	7.7
SW	2.6	1.4	.8	.0	.0			4.1	6.4		2.1	6.1	5.1	2.7
W	3.1	1.8	.3	.8	.0			5.2	7.2		3.7	7.0	7.2	3.1
NW	3.3	8.1	1.2	.2	.0			12.8	8.9		11.6	13.6	13.9	12.2
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	8.5							8.5	.0		5.2	8.2	11.2	9.3
TOT OBS	1818	1288	232	9	0	3045			7.6		534	1013	498	998
TOT PCT	49.8	42.3	7.6	.3	.0			100.0			100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1891-1969  
(OVER-ALL) 1854-1967

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3.65 101.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND			SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47					
0000	5.2	12.7	59.4	21.5	1.1	.0	.0	7.7	100.0	534	
0600	8.2	14.9	53.0	21.7	2.2	.1	.0	7.6	100.0	1015	
1200	11.2	10.6	52.8	22.9	2.2	.2	.0	7.7	100.0	498	
1800	9.3	11.6	56.3	20.5	2.2	.0	.0	7.6	100.0	998	
TOT	260	388	1680	654	61	2	0	7.6		3045	
PCT	8.5	12.7	55.2	21.5	2.0	.1	.0	100.0			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL	MEAN CLOUD COVER
N	.0	.0	2.3	2.3		7.0
NE	.0	.0	4.7	.0		7.0
E	7.0	4.7	9.3	.0		3.8
SE	7.0	9.3	26.2	4.7		5.0
S	.0	.0	1.7	.0		5.0
SW	.0	.0	4.7	.0		7.0
W	.0	.0	.0	.0		.0
NW	.0	2.3	7.0	2.3		6.0
VAR	.0	.0	.0	.0		.0
CALM	2.3	2.3	.0	.0		2.5
TOT OBS	7	8	24	4	43	5.0
TOT PCT	16.3	18.6	55.8	9.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4/8)  
AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH < 5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	2.3	2.3	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.7
.0	.0	.0	2.3	.0	.0	.0	.0	.0	.0	.0	18.6
.0	.0	.0	2.3	7.0	2.3	.0	.0	.0	.0	.0	35.5
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7
.0	.0	.0	2.3	.0	.0	.0	.0	.0	.0	.0	2.3
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	2.3	.0	.0	.0	.0	.0	9.3
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.7
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	33
.0	.0	.0	9.3	9.3	4.7	.0	.0	.0	.0	.0	76.7
											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	> 10	> 5	> 2	VSBY (NM)	> 1	> 1/2	> 1/4	> 50 YD	> 30
> 6500	.0	.0	.0	.0	.0	.0	.0	.0	.0
> 5000	.0	.0	.0	.0	.0	.0	.0	.0	.0
> 3500	.0	.0	.0	.0	.0	.0	.0	.0	.0
> 2000	2.3	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
> 1000	9.3	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
> 600	16.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
> 300	16.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
> 150	16.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
> 0	16.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
TOTAL	7	10	10	10	10	10	10	10	10

TOTAL NUMBER OF OBS: 43

PCT FREQ NH < 5/8: 76.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	9	TOTAL
0	1	2	3	4	5	6	7	8	9	OBS
6.7	13.3	26.7	13.3	15.6	8.9	2.2	8.9	4.4	.0	45

PERIOD: (PRIMARY) 1891-1969  
(OVER-ALL) 1854-1969

JULY

AREA 0001 SOUTHEAST SUMATRA  
3.65 101.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PLT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5<10	PCP	.0	.0	1.6	6.3	.0	.0	.0	3.1	.0	.0	10.9	.0
	NO PCP	3.1	.0	.0	6.3	4.7	1.6	.0	.0	.0	.0	15.6	.0
	TOT %	3.1	.0	1.6	12.5	4.7	1.6	.0	3.1	.0	.0	26.6	.0
10+	PCP	.0	.0	1.6	1.6	.0	.0	.0	.0	.0	.0	3.1	.0
	NO PCP	3.1	3.1	14.8	34.8	2.0	3.1	.0	6.3	.0	3.1	70.3	.0
	TOT %	3.1	3.1	16.4	36.3	2.0	3.1	.0	6.3	.0	3.1	73.4	.0
TOT OBS													
TOT PCT		6.3	3.1	18.0	48.8	6.6	4.7	.0	9.4	.0	3.1	100.0	64

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	.0
	TOT %	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3	.0
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.0
	4-10	.1	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3	.0
	11-21	.1	.0	.0	.0	.0	.1	.1	.1	.0	.0	.3	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.2	.0	.0	.0	.0	.1	.1	.3	.0	.3	1.0	.0
5<10	0-3	.2	.0	.3	.7	.3	.0	.0	.0	.0	.5	2.0	.0
	4-10	.8	.2	.3	1.4	.8	.3	.6	.6	.0	.0	4.8	.0
	11-21	.1	.1	.2	.3	.2	.2	.2	.7	.0	.0	1.8	.0
	22+	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	.0
	TOT %	1.0	.3	.8	2.4	1.3	.4	.8	1.4	.0	.5	8.8	.0
10+	0-3	1.5	2.3	2.1	2.0	2.1	1.0	.8	1.5	.0	5.5	18.8	.0
	4-10	4.7	3.7	6.9	19.0	7.8	2.4	2.5	5.1	.0	.0	52.2	.0
	11-21	.7	.0	1.0	13.0	1.5	.2	.3	1.8	.0	.0	18.5	.0
	22+	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	.0
	TOT %	6.8	6.0	10.0	34.1	11.5	3.6	3.8	8.4	.0	5.5	89.7	.0
TOT OBS													
TOT PCT		8.0	6.3	10.8	36.7	12.8	4.1	4.9	10.2	.0	6.3	100.0	600

JULY

PERIOD: (PRIMARY) 1891-1969  
(OVER-ALL) 1854-1969AREA 0001 SOUTHEAST SUMATRA  
3.65 101.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 249	300 399	600 699	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00Z03	.0	.0	.0	6.7	13.3	6.7	.0	.0	.0	.0	26.7	73.3	15
06Z09	.0	.0	.0	.0	7.1	.0	.0	.0	.0	.0	7.1	92.9	14
12Z15	.0	.0	.0	16.7	.0	.0	.0	.0	.0	.0	16.7	83.3	6
18Z21	.0	.0	.0	22.2	11.1	11.1	.0	.0	.0	.0	44.4	55.6	9
TOT	0	0	0	4	4	2	0	0	0	0	10	34	44
PCT	.0	.0	.0	9.1	9.1	4.5	.0	.0	.0	.0	22.7	77.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00Z03	.0	.9	.0	1.8	9.9	87.4	111
06Z09	.0	.0	.3	.5	6.7	92.2	193
12Z15	.0	.0	.0	.0	9.9	90.1	101
18Z21	.0	.0	.5	1.5	10.2	87.8	196
TOT	0	1	2	6	54	538	601
PCT	.0	.2	.3	1.0	9.0	89.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00Z03	.0	.0	6.7	20.0	73.3	15
06Z09	.0	.0	.0	7.1	92.9	14
12Z15	.0	.0	22.0	.0	22.0	5
18Z21	.0	.0	22.2	22.2	55.6	9
TOT	0	0	4	6	33	43
PCT	.0	.0	9.3	14.0	76.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	2.0	.0	.0	.0	1	2.0
83/89	.0	.0	.0	.0	.0	6.1	.0	.0	3	6.1
80/84	.0	.0	.0	.0	.0	40.8	32.7	2.0	37	75.5
75/79	.0	.0	.0	.0	.0	.0	10.2	6.1	8	16.3
TOTAL	0	0	0	0	1	23	21	4	49	100.0
PCT	.0	.0	.0	.0	2.0	46.9	42.9	8.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0
83/89	.0	.0	.0	.5	1.5	.0	.0	2.0	.0	2.0
80/84	2.0	4.1	10.2	46.9	.0	2.0	.0	8.2	.0	2.0
75/79	4.1	.0	2.0	6.1	.0	2.0	.0	2.0	.0	.0
TOTAL	6.1	4.1	14.3	53.6	1.5	4.1	.0	12.2	.0	4.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00Z03	90	87	85	81	77	75	72	81.1	530
06Z09	93	90	87	83	79	76	74	83.2	992
12Z15	89	86	85	82	78	76	74	81.9	489
18Z21	92	86	84	81	76	75	73	80.7	984
TOT	93	89	86	82	77	75	72	81.8	2995

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00Z03	.0	.0	.0	.0	.0	47.1	41.2	11.8	81	17
06Z09	.0	.0	.0	.0	.0	60.0	26.7	6.7	77	15
12Z15	.0	.0	.0	.0	.0	30.0	30.0	.0	79	6
18Z21	.0	.0	.0	.0	.0	25.0	66.7	8.3	82	12
TOT	0	0	1	23	22	4	80	50		

JULY

PERIOD: (PRIMARY) 1891-1969  
(OVER-ALL) 1894-1969AREA 0001 SOUTHEAST SUMATRA  
3.65 101.6E

TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
7/8	.0	.0	.0	.0	1.7	1	.0	1.7
3	.0	.0	1.7	1.7	.0	2	.0	3.3
2	.0	.0	1.7	.0	.0	1	.0	1.7
1	.0	.0	6.7	1.7	.0	5	.0	8.3
0	.0	.0	13.3	.0	.0	8	.0	13.3
-1	.0	3.3	16.7	3.3	.0	14	.0	23.3
-2	.0	3.3	20.0	1.7	.0	15	.0	25.0
-3	.0	5.0	5.0	.0	.0	6	.0	10.0
-4	5.0	6.7	.0	.0	.0	7	.0	11.7
-6	.0	1.7	.0	.0	.0	1	.0	1.7
TOTAL	3	12	39	5	1	60	0	60
PCT	5.0	20.0	65.0	8.3	1.7	100.0		100.0

PERIOD: (OVER-ALL) 1963-1967

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	.0	.0	.0	20.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	20.0	20.0	.0	.0	.0	40.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	40.0	.0	.0	.0	40.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	40.0	60.0	.0	.0	.0	100.0

PERIOD: (OVER-ALL) 1963-1969

JULY

TABLE 18 (CONT)

AREA 0001 SOUTHEAST SUMATRA  
3.65 101.6E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	M							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	.0	20.0	.0	.0	.0	.0	20.0	
1-2	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	20.0	20.0	.0	.0	.0	40.0	
5-6	.0	.0	40.0	.0	.0	.0	40.0	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	40.0	60.0	.0	.0	.0	100.0	5

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	5.6	.0	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	3
6-7	.0	.0	30.6	8.3	11.1	5.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	5
8-9	.0	.0	5.6	11.1	2.8	2.8	5.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10	6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	6
12-13	.0	.0	2.8	.0	.0	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	6
13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	6
INDEX	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	0
TOTAL	1	2	14	8	5	4	2	0	0	0	0	0	0	0	0	0	0	0	0	36	5
PCT	2.8	5.6	38.9	22.2	13.9	11.1	5.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1894-1969  
(OVER-ALL) 1860-1969

AUGUST

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3.65 101.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	CRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA		
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0		
NE	.0	.0	25.6	.0	.0	.0	.0	28.6	.0	.0	.0	.0	.0	.0	71.4		
E	.0	.0	33.3	.0	.0	.0	.0	33.3	.0	.0	.0	.0	.0	.0	66.7		
SE	.0	11.6	5.8	.0	.0	.0	.0	17.4	.0	.0	.0	.0	.0	.0	82.6		
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0		
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0		
W	57.1	.0	.0	.0	.0	.0	.0	57.1	.0	.0	.0	.0	.0	.0	42.9		
NW	16.7	.0	.0	.0	.0	.0	.0	16.7	33.3	.0	.0	.0	.0	.0	50.0		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	.0	33.3	.0	.0	.0	.0	.0	33.3	.0	.0	.0	.0	.0	.0	66.7		
TOT PCT	4.8	7.1	9.5	.0	.0	.0	.0	21.4	4.8	.0	.0	.0	.0	.0	73.8		
TOT OBS	42																

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	CRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA		
00003	.0	16.7	8.3	.0	.0	.0	.0	25.0	8.3	.0	.0	.0	.0	.0	66.7		
06009	8.3	.0	8.3	.0	.0	.0	.0	16.7	8.3	.0	.0	.0	.0	.0	75.0		
12015	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0		
18021	11.1	11.1	22.2	.0	.0	.0	.0	44.4	.0	.0	.0	.0	.0	.0	55.6		
TOT PCT	4.7	7.0	9.3	.0	.0	.0	.0	20.9	4.7	.0	.0	.0	.0	.0	74.4		
TOT OBS	43																

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.8	3.4	.9	.1	.0	.0		5.3	8.1	7.5	.0	4.6	1.5	2.3	25.0	7.3	8.6	
NE	.9	3.5	.3	.1	.0	.0		4.8	6.3	9.3	.0	2.1	.8	2.0	50.0	6.5	8.4	
E	1.2	5.4	1.9	.3	.0	.0		8.9	8.4	13.0	.0	8.8	3.2	6.5	.0	9.9	12.2	
SE	2.3	18.0	19.3	3.3	.1	.0		43.1	11.9	44.4	.0	46.9	42.5	42.2	.0	40.2	42.1	
S	1.2	7.8	4.7	.6	.0	.0		14.4	10.0	8.1	.0	14.8	24.4	17.8	.0	12.7	8.7	
SW	.7	2.6	.6	.0	.0	.0		3.8	7.1	1.8	.0	3.2	8.1	5.5	.0	2.4	1.9	
W	.7	2.8	.8	.1	.0	.0		4.4	8.0	2.8	.0	3.4	6.6	5.4	.0	4.7	3.6	
NW	1.1	5.5	2.1	.4	.0	.0		1.2	9.1	8.6	100.0	10.4	8.8	9.4	25.0	8.8	8.7	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	6.1							6.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT OBS	459	1490	933	154	6	0	3042		9.5	4.5	.0	3.7	4.2	9.1	.0	7.6	5.8	
TOT PCT	15.1	49.0	30.7	5.1	.2	.0		100.0		513	1	524	505	508	2	489	500	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	2.8	1.9	.5	.1	.0		5.3	8.1	7.5	3.1	2.4	8.0
NE	3.3	1.4	.1	.0	.0		4.8	6.3	9.2	1.5	2.2	7.5
E	4.4	3.6	.9	.1	.0		8.9	8.4	13.0	6.0	6.5	11.1
SE	9.1	22.9	10.4	.7	.0		43.1	11.9	44.4	44.7	42.1	41.2
S	4.5	7.7	2.1	.1	.0		14.4	10.0	8.1	19.5	17.7	10.7
SW	2.1	1.6	.2	.0	.0		3.8	7.1	1.8	3.6	5.4	2.1
W	2.1	1.9	.3	.0	.0		4.4	8.0	2.8	5.0	5.4	4.1
NW	3.9	3.9	1.2	.1	.0		9.2	9.1	8.8	9.6	9.4	8.7
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	6.1						6.1	.0	4.5	5.0	9.0	6.7
TOT OBS	1165	1365	477	35	0	3042		9.5	514	1029	510	989
TOT PCT	38.3	44.9	15.7	1.2	.0		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1894-1969  
(OVER-ALL) 1860-1969

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47	48+			
00003	4.5	9.3	51.2	30.0	4.5	.6	.0	9.5	100.0	514
06009	5.0	9.6	47.7	31.6	5.8	.3	.0	9.7	100.0	1029
12015	9.0	7.8	47.8	29.2	6.1	.0	.0	9.5	100.0	510
18021	6.7	8.7	49.7	30.8	4.0	.0	.0	9.4	100.0	989
TOT	186	273	1490	933	154	6	0	9.5		3642
PCT	0.1	9.0	49.0	30.7	5.1	.2	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.0	.0	.0	.0		2.0
NE	1.0	.0	.0	.0		2.0
E	.0	.0	11.0	.0		6.5
SE	.0	4.0	29.0	16.0		6.0
S	.0	4.0	3.0	.0		3.2
SW	1.0	.0	1.0	.0		4.5
W	3.0	.0	.0	.0		2.0
NW	.0	.0	4.0	8.0		7.6
VAR	.0	.0	.0	.0		.0
CALM	.0	4.0	.0	8.0		6.3
TOT OBS	2	3	12	8	25	5.9
TOT PCT	8.0	12.0	48.0	32.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.0
.0	.0	.0	4.0	12.0	8.0	.0	.0	.0	.0	.0	25.0
.0	.0	.0	.0	3.0	.0	.0	.0	.0	.0	.0	4.0
.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	1.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	8.0
.0	.0	.0	.0	2	4	2	.0	.0	.0	.0	17
.0	.0	.0	8.0	16.0	8.0	.0	.0	.0	.0	.0	68.0
											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.0	.0	.0	.0	.0	.0	.0	.0
>5000	.0	.0	.0	.0	.0	.0	.0	.0
>3500	.0	.0	.0	.0	.0	.0	.0	.0
>2000	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
>1000	15.4	15.4	23.1	23.1	23.1	23.1	23.1	23.1
>600	23.1	23.1	34.6	34.6	34.6	34.6	34.6	34.6
>300	23.1	23.1	34.6	34.6	34.6	34.6	34.6	34.6
>150	23.1	23.1	34.6	34.6	34.6	34.6	34.6	34.6
>0	23.1	23.1	34.6	34.6	34.6	34.6	34.6	34.6
TOTAL	6	6	9	9	9	9	9	9

TOTAL NUMBER OF OBS: 26

PCT FREQ NH <5/8: 65.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
.0	14.3	21.4	14.3	17.9	17.9	.0	7.1	7.1	.0	28



PERIOD: (PRIMARY) 1894-1969  
(OVER-ALL) 1860-1969

AUGUST

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3.6S 101.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.0	1.2	6.0	7.1	.0	.0	.0	2.4	.0	2.4	19.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	1.2	6.0	7.1	.0	.0	.0	2.4	.0	2.4	19.0	.0
5<10	PCP	.0	.0	.0	.0	.0	.0	2.4	.0	.0	.0	2.4	.0
	NO PCP	1.2	.0	.0	.0	.0	.0	3.6	.0	.0	.0	4.8	.0
	TOT %	1.2	.0	.0	.0	.0	.0	2.4	3.6	.0	.0	7.1	.0
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	3.0	3.0	11.9	33.9	6.0	1.2	1.8	8.3	.0	4.8	73.8	.0
	TOT %	3.0	3.0	11.9	33.9	6.0	1.2	1.8	8.3	.0	4.8	73.8	.0
TOT OBS													
TOT PCT													
		4.2	4.2	17.9	41.1	6.0	1.2	4.2	14.3	.0	7.1	100.0	42

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.2	.2	.0	.0	.0	.0	.2	.2	.0	.0	.7	.0
	11-21	.1	.0	.0	.0	.1	.1	.2	.1	.0	.0	.5	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.2	.2	.0	.0	.1	.1	.3	.2	.0	.0	1.2	.0
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0
	4-10	.1	.2	.2	.0	.0	.2	.2	.2	.0	.0	1.2	.0
	11-21	.2	.0	.3	1.2	.0	.0	.0	.0	.0	.0	1.7	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.2	.2	.6	1.2	.0	.2	.2	.2	.0	.2	3.0	.0
5<10	0-3	.2	.0	.0	.0	.0	.0	.0	.2	.0	.0	.3	.0
	4-10	.3	.2	.2	1.4	.5	.0	.0	.3	.0	.0	3.0	.0
	11-21	.1	.0	.0	4.7	.9	.2	.2	.1	.0	.0	6.1	.0
	22+	.0	.1	.2	.7	.2	.0	.0	.0	.0	.0	1.2	.0
	TOT %	.6	.2	.5	6.8	1.6	.2	.2	.6	.0	.0	10.6	.0
10+	0-3	1.0	1.0	1.2	2.0	.6	.7	.7	1.0	.0	3.3	11.6	.0
	4-10	1.9	1.8	4.1	17.5	8.6	2.2	1.5	3.8	.0	.0	41.5	.0
	11-21	.7	.0	1.0	22.0	5.4	.0	.1	.6	.0	.0	29.7	.0
	22+	.0	.0	.5	1.6	.4	.0	.0	.0	.0	.0	2.3	.0
	TOT %	3.6	2.9	6.8	42.8	15.0	3.0	2.3	5.4	.0	3.3	85.1	.0
TOT OBS													
TOT PCT													
		4.7	3.5	7.9	50.8	16.7	3.4	3.0	6.6	.0	3.3	100.0	603

## AUGUST

PERIOD: (PRIMARY) 1894-1969  
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	22.2	11.1	.0	.0	.0	.0	.0	33.3	66.7	9
06009	.0	.0	.0	.0	16.7	.0	.0	.0	.0	.0	16.7	83.3	6
12015	.0	.0	.0	12.5	12.5	25.0	.0	.0	.0	.0	50.0	50.0	8
18021	.0	.0	.0	.0	20.0	.0	.0	.0	.0	.0	20.0	80.0	5
TOT	0	0	0	3	4	2	0	0	0	0	9	19	28
PCT	.0	.0	.0	10.7	14.3	7.1	.0	.0	.0	.0	32.1	67.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.9	3.6	14.5	80.9	110
06009	.0	.0	1.0	1.0	6.0	92.0	199
12015	.0	1.0	.0	2.0	13.1	83.8	99
18021	.0	.0	2.0	5.1	11.7	81.1	196
TOT	0	1	7	18	64	514	604
PCT	.0	.2	1.2	3.0	10.6	85.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	37.5	.0	62.5	8
06009	.0	.0	.0	16.7	83.3	6
12015	.0	.0	14.3	42.9	42.9	7
18021	.0	.0	40.0	.0	60.0	5
TOT	0	0	6	4	16	26
PCT	.0	.0	23.1	15.4	61.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	4.3	.0	.0	.0	1	4.3
80/84	.0	.0	.0	.0	4.3	43.5	30.4	.0	18	78.3
75/79	.0	.0	.0	.0	.0	.0	8.7	8.7	4	17.4
TOTAL	0	0	0	0	2	10	9	2	23	100.0
PCT	.0	.0	.0	.0	8.7	43.5	39.1	8.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	4.3	.0	.0	.0	.0	.0	.0
3.3	1.1	12.0	32.6	6.5	2.2	3.3	8.7	.0	8.7
.0	.0	.0	8.7	.0	.0	.0	4.3	.0	4.3
3.3	1.1	12.0	45.7	6.5	2.2	3.3	13.0	.0	13.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	87	86	85	81	76	74	71	80.7	505
06009	91	90	87	83	79	76	73	82.7	1001
12015	89	87	85	81	77	76	74	81.3	502
18021	87	85	83	80	76	74	70	80.7	976
TOT	91	87	86	81	77	75	70	81.3	2984

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	33.3	66.7	.0	82	6
06009	.0	.0	33.3	50.0	16.7	.0	74	6
12015	.0	.0	.0	37.5	50.0	12.5	83	8
18021	.0	.0	.0	50.0	25.0	25.0	83	4
TOT	0	0	2	10	10	2	81	24

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	WD FOG
4	.0	.0	.0	.0	2.6	1	.0	2.6
3	.0	.0	2.6	.0	.0	1	.0	2.6
1	.0	.0	2.6	.0	.0	1	.0	2.6
0	.0	.0	15.8	2.6	.0	7	.0	18.4
-1	.0	7.9	18.4	.0	.0	10	.0	26.3
-2	.0	10.5	15.8	.0	.0	10	.0	26.3
-3	.0	.0	5.3	.0	.0	2	.0	5.3
-4	.0	7.9	.0	.0	.0	3	.0	7.9
-5	.0	2.6	.0	.0	.0	1	.0	2.6
-6	.0	2.6	.0	.0	.0	1	.0	2.6
-7/-8	2.6	.0	.0	.0	.0	1	.0	2.6
TOTAL	1	12	23	1	1	38	0	38
PCT	2.6	31.6	60.5	2.6	2.6	100.0		100.0

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	33.3	.0	.0	.0	.0	33.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	33.3	.0	.0	.0	33.3
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	33.3	33.3	.0	.0	.0	66.7

PERIOD: (OVER-ALL) 1963-1969

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AREA 0001 SOUTHEAST SUMATRA  
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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	25.0	.0	.0	.0	.0	25.0	.0	8.3	.0	.0	.0	.0	8.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	25.0	.0	.0	.0	.0	25.0	.0	8.3	.0	.0	.0	.0	8.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	.0	25.0	.0	.0	.0	.0	25.0	
1-2	.0	50.0	.0	.0	.0	.0	50.0	
3-4	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	25.0	.0	.0	.0	25.0	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	75.0	25.0	.0	.0	.0	100.0	4

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	12.0	20.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9
6-7	.0	.0	16.0	8.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7
8-9	.0	.0	12.0	8.0	.0	8.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7
10-11	.0	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
INDET	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
TOTAL	1	3	12	5	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	25	4
PCT	4.0	12.0	48.0	20.0	4.0	12.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

## SEPTEMBER

PERIOD: .PRIMARY) 1893-1972  
(OVER-ALL) 1862-1972AREA 0001 SOUTHEAST SUMATRA  
3.75 101.7E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DR7L	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THOR LTNG	FOG PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	98.3	.0	.0	.0	.0	.0	.0	98.3	25.0	.0	.0	.0	.0	.0	16.7
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	25.0	.0	.0	.0	.0	.0	25.0	.0	.0	.0	.0	.0	.0	75.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	5.3	2.7	.0	.0	.0	.0	92.0
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
W	22.2	.0	.0	.0	.0	.0	.0	22.2	77.8	.0	.0	.0	.0	.0	.0
NW	44.0	.0	.0	.0	.0	.0	.0	44.0	24.0	.0	.0	.0	.0	.0	32.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	100.0	.0	.0	.0	.0	.0	.0	100.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	7.7	1.6	.0	.0	.0	.0	.0	11.3	9.7	1.6	.0	.0	.0	.0	77.4
TOT OBS:	62														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DR7L	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THOR LTNG	FOG PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00Z03	13.6	4.5	.0	.0	.0	.0	.0	18.2	4.5	.0	.0	.0	.0	.0	77.3
06Z09	4.8	.0	.0	.0	.0	.0	.0	4.8	19.0	.0	.0	.0	.0	.0	76.2
12Z15	10.0	.0	.0	.0	.0	.0	.0	10.0	.0	10.0	.0	.0	.0	.0	80.0
18Z21	10.0	.0	.0	.0	.0	.0	.0	10.0	10.0	.0	.0	.0	.0	.0	80.0
TOT PCT	9.5	1.6	.0	.0	.0	.0	.0	11.1	9.5	1.6	.0	.0	.0	.0	77.8
TOT OBS:	63														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL CTS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.0	3.7	1.5	.0	.0	.0		6.3	8.0	7.7	.0	.0	5.0	2.3	3.7	.0	8.6	9.9
NE	.5	3.1	.8	.0	.0	.0		4.2	7.2	7.0	.0	.0	2.0	.6	2.8	.0	7.0	5.6
E	1.0	4.7	1.4	.1	.0	.0		7.2	7.7	10.1	.0	.0	6.5	2.3	4.4	.0	8.3	10.9
SE	2.3	16.7	19.7	2.3	.1	.0		41.0	11.7	45.2	33.3	43.8	38.8	40.2	.0	38.7	39.4	
S	1.2	7.9	9.1	.4	.0	.0		14.6	9.6	8.5	.0	13.2	21.9	17.3	.0	13.3	11.8	
SW	.8	3.4	.9	.2	.0	.0		5.3	7.8	2.8	33.3	5.8	9.1	7.2	.0	3.3	5.5	
W	.6	2.7	1.1	.2	.0	.0		4.6	9.0	2.5	.0	4.4	8.8	5.6	.0	3.1	3.3	
NW	1.3	6.5	4.2	.5	.0	.0		12.5	10.0	13.1	33.3	12.9	12.7	13.5	.0	11.5	11.4	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.4							4.4	.0	3.0	.0	6.2	3.4	5.3	.0	4.1	4.3	
TOT CTS	381	1418	1007	107	3	0	2916		9.6	493	3	504	465	470	0	486	493	
TOT PCT	13.1	48.6	34.9	3.7	.1	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	09	12
N	2.8	3.0	.4	.0	.0		6.3	8.0	7.7	3.7	3.7	9.3	
NE	2.3	1.7	.2	.0	.0		4.2	7.2	6.9	1.4	2.8	6.3	
E	3.5	3.3	.4	.0	.0		7.2	7.7	10.0	4.5	4.4	9.6	
SE	8.8	22.7	9.1	.4	.0		41.0	11.7	45.1	41.4	40.2	39.0	
S	4.8	8.1	1.6	.0	.0		14.6	9.6	8.5	17.4	17.3	13.5	
SW	2.8	2.1	.3	.0	.0		5.3	7.8	3.0	7.4	7.2	3.4	
W	1.8	2.2	.5	.0	.0		4.6	9.0	2.5	8.5	5.6	3.2	
NW	3.9	6.6	1.9	.1	.0		12.5	10.0	13.2	12.8	13.5	11.4	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	4.4						4.4	.0	3.0	4.9	5.3	4.2	
TOT OBS	1023	1453	422	18	0	2916		9.6	498	969	470	579	
TOT PCT	35.1	49.8	14.5	.6	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1893-1972  
(OVER-ALL) 1862-1972

AREA 0001 SOUTHEAST SUMATRA  
3.75 101.7E

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND			SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL DBS
		1-3	4-10	11-21	22-33	34-47					
00003	3.0	8.4	54.0	29.5	4.2	.0	.0	9.4	100.0	498	
06009	4.9	8.7	47.2	35.2	4.1	.0	.0	9.7	100.0	470	
12015	5.3	9.9	48.7	41.8	4.5	.0	.0	100.0	0	960	
18021	4.2	9.0	46.3	35.2	2.6	.3	.0	9.6	100.0	479	
TOTL	128	293	1418	1007	107	3	0	9.6		2916	
PCT	4.4	8.7	48.6	34.5	3.7	.1	.0	100.0			

TABLE 6

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIRECTION						MEAN
WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL CWS	CLOUD COVER
N	.0	1.6	1.0	1.6		6.0
NE	.0	.0	1.6	.0		6.0
E	.0	3.6	1.6	2.1		5.3
SE	.0	23.4	27.6	17.7		5.7
S	2.1	.0	3.6	1.0		4.7
SW	.0	.0	2.1	.0		6.0
W	.0	.0	1.6	2.1		7.5
NW	.0	.5	2.6	.5		6.7
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	.0	2.1		8.0
TOT OBS	1	14	20	13	48	
TOT PCT	2.1	29.2	41.7	27.1	100.0	5.8

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH  $\geq 4/8$ )  
AND OCCURRENCE OF NH  $\leq 5/8$  BY WIND DIRECTION

[illegible]

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM) ≥ 4/0 AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	• OR >10	• OR >5	• OR >2	• OR >1	• OR >1/2	• OR >1/4	• OR >50YD	• OR >0
• OR >6500	.0	.0	.0	.0	.0	.0	.0	.0
• OR >5000	.0	.0	.0	.0	.0	.0	.0	.0
• OR >3500	.0	.0	.0	.0	.0	.0	.0	.0
• OR >2000	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
• OR >1000	18.0	18.8	20.8	20.8	20.8	20.8	20.8	20.8
• OR >600	20.8	20.8	25.0	25.0	25.0	25.0	25.0	25.0
• OR >300	20.8	22.9	27.1	27.1	27.1	27.1	27.1	27.1
• OR >150	20.8	22.9	27.1	27.1	27.1	27.1	27.1	27.1
• OR > 0	20.8	22.9	27.1	27.1	27.1	27.1	27.1	27.1
TOTAL	10	11	13	13	13	13	13	13

TOTAL NUMBER OF OBS: 48

PCT FREQ NH <5/81 72.9

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	085CD	TOTAL 085
2.1	6.3	20.8	18.8	25.0	6.3	10.4	2.1	8.3	.0	48

PERIOD: (PRIMARY) 1893-1972  
(OVER-ALL) 1862-1972

SEPTEMBER

AREA 0001 SOUTHEAST SUMATRA  
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	1.6	.0	.0	.0	.0	.0	1.6	.0	1.6	.0	4.8	
	NO PCP	.0	.0	.0	.0	.0	.0	1.6	.0	.0	.0	1.6	
	TOT %	1.6	.0	.0	.0	.0	.0	1.6	.0	1.6	.0	6.5	
5<10	PCP	.0	.0	1.6	.0	.0	.0	.0	.0	.0	.0	1.6	
	NO PCP	.0	.0	.8	7.3	.0	1.6	.0	1.6	.0	.0	11.3	
	TOT %	.0	.0	2.4	7.3	.0	1.6	.0	1.6	.0	.0	12.9	
10+	PCP	1.2	.0	.0	.0	.0	.0	.8	2.8	.0	.0	4.8	
	NO PCP	2.0	1.2	4.0	53.2	6.9	3.2	1.2	4.0	.0	.0	75.8	
	TOT %	3.2	1.2	4.0	53.2	6.9	3.2	2.0	6.9	.0	.0	80.6	
TOT OBS													
TOT PCT													
		4.8	1.2	6.5	60.5	6.9	4.8	3.6	10.1	.0	1.6	100.0	62

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0	.4	
	22+	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.5	.1	.0	.0	.0	.0	.0	.6	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.1	.2	.0	.7	.2	.1	.2	.3	.0	.0	1.8	
	11-21	.2	.0	.0	.4	.2	.2	.0	.2	.0	.0	1.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.3	.2	.0	1.1	.4	.3	.2	.5	.0	.2	3.1	
5<10	0-3	.0	.0	.0	.1	.1	.6	.0	.2	.0	.2	1.2	
	4-10	.5	.4	.8	3.8	.6	.4	.1	.5	.0	.0	7.1	
	11-21	.1	.0	.3	2.6	1.0	.2	.0	.3	.0	.0	4.5	
	22+	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.6	.4	1.1	6.7	1.7	1.2	.1	1.0	.0	.2	12.9	
10+	0-3	1.2	.4	.9	2.5	.6	.6	.1	.3	.0	2.5	9.2	
	4-10	2.1	2.9	4.2	16.5	9.0	3.3	1.3	3.0	.0	.0	42.4	
	11-21	.2	.2	1.0	20.3	5.4	.7	.2	1.0	.0	.0	29.2	
	22+	.0	.0	.0	1.7	.3	.0	.0	.2	.0	.0	2.2	
	TOT %	3.5	3.6	6.1	41.1	15.3	4.6	1.6	4.6	.0	2.5	82.9	
TOT OBS													
TOT PCT													
		4.5	4.5	7.2	49.4	17.5	6.1	1.9	6.0	.0	2.9	100.0	510

SEPTEMBER

PERIOD: (PRIMARY) 1893-1972  
(OVER-ALL) 1862-1972

AREA 0001 SOUTHEAST SUMATRA  
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY MGT	TOTAL OBS
00003	.0	.0	6.3	6.3	12.5	6.3	.0	.0	.0	.0	31.3	68.8	16
06009	.0	.0	.0	.0	10.0	5.0	.0	.0	.0	.0	15.0	85.0	20
12015	.0	.0	.0	.0	.0	16.7	.0	.0	.0	.0	16.7	83.3	6
18021	.0	.0	.0	16.7	50.0	.0	.0	.0	.0	.0	66.7	33.3	6
TOT	0	0	1	2	7	3	0	0	0	0	13	35	48
PCT	.0	.0	2.1	4.2	14.6	6.3	.0	.0	.0	.0	27.1	72.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	4.2	15.8	80.0	95
06009	.0	.0	.0	.0	11.2	88.2	170
12015	.0	1.2	1.2	1.2	13.3	83.1	83
18021	.0	.0	1.2	6.1	13.5	78.5	163
TOT	1	1	3	16	67	423	511
PCT	.2	.2	.6	3.1	13.1	82.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING MGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	6.3	12.5	18.8	68.8	16
06009	.0	.0	5.0	10.0	85.0	20
12015	.0	.0	.0	16.7	83.3	6
18021	.0	.0	16.7	50.0	33.3	6
TOT	0	1	4	9	35	48
PCT	.0	2.1	8.3	18.8	72.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.0	2.4	.0	.0	1	2.4
80/84	.0	.0	.0	.0	.0	34.1	39.0	2.4	31	75.6
75/79	.0	.0	.0	.0	2.4	2.4	12.2	4.9	9	22.0
TOTAL	0	0	0	0	1	16	21	3	41	100.0
PCT	.0	.0	.0	.0	2.4	39.0	51.2	7.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	2.4	.0	.0	.0	.0	.0	.0
80/84	3.0	1.8	5.5	56.7	3.0	2.4	1.8	1.2	.0	.0
75/79	.0	.0	2.4	7.3	2.4	.0	2.4	4.9	.0	2.4
TOTAL	3.0	1.8	7.9	66.5	5.5	2.4	4.3	6.1	.0	2.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	91	87	85	80	76	74	72	80.4	490
06009	92	90	87	82	78	75	74	82.4	948
12015	90	86	85	82	77	75	74	81.4	460
18021	91	86	84	80	76	74	72	80.0	968
TOT	92	88	86	81	77	75	72	81.1	2866

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	23.1	69.2	7.7	83	13
06009	.0	.0	5.9	59.8	35.3	.0	77	17
12015	.0	.0	.0	20.0	40.0	40.0	85	5
18021	.0	.0	.0	28.6	71.4	.0	82	7
TOT	0	0	1	16	22	3	81	42



PERIOD: (PRIMARY) 1893-1972  
(OVER-ALL) 1862-1972

SEPTEMBER

AREA 0001 SOUTHEAST SUMATRA  
3.75 101.7E

TABLE 17

PCT FRFG OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	TOT	N FOG	NO FOG
4	.0	.0	.0	1.9	1	.0	1.9
2	.0	.0	1.9	1.9	2	.0	3.8
1	.0	.0	7.7	.0	4	.0	7.7
0	.0	5.8	11.5	.0	9	.0	17.3
-1	.0	5.8	19.2	.0	13	.0	25.0
-2	.0	13.5	11.5	.0	13	.0	25.0
-3	.0	7.7	.0	.0	4	.0	7.7
-4	.0	3.8	1.9	.0	3	.0	5.8
-5	1.9	1.9	.0	.0	2	.0	3.8
-6	1.9	.0	.0	.0	1	.0	1.9
TOTAL	2	20	28	2	52	0	52
PCT	3.8	38.5	53.8	3.8	100.0		100.0

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	12.5	.0	.0	.0	.0	12.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	50.0	.0	.0	50.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	12.5	.0	50.0	.0	.0	62.5

PERIOD: (OVER-ALL) 1950-1972

SEPTEMBER

TABLE 18 (CONT)

AREA 0001 SOUTHEAST SUMATRA  
3.75 101.7E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	50.0	.0	.0	.0	.0	50.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	50.0	.0	.0	50.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	50.0	.0	50.0	.0	.0	100.0	2

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	4.4	4.4	4.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6
6-7	.0	.0	13.6	24.4	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19
8-9	.0	.0	.0	8.9	28.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17
10-11	.0	.0	.0	2.2	.0	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
INDET	.0	.0	.0	.0	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
TOTAL	.0	2	9	18	15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
PCT	.0	4.4	20.0	40.0	33.3	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1891-1968  
(OVER-ALL) 1860-1968

OCTOBER

AREA 0001 SOUTHEAST SUMATRA  
3.75 101.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRTL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	23.1	15.4	.0	.0	.0	.0	.0	38.5	.0	.0	.0	.0	.0	.0	61.5
NE	23.5	.0	.0	.0	.0	.0	.0	23.5	.0	.0	.0	.0	.0	.0	76.5
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	5.7	.0	.0	.0	.0	.0	.0	5.7	5.7	14.3	.0	.0	.0	.0	77.1
S	20.8	.0	.0	.0	.0	.0	.0	20.8	.0	.0	.0	.0	.0	.0	79.2
SW	12.5	.0	.0	.0	.0	.0	.0	12.5	.0	.0	.0	.0	.0	.0	87.5
W	14.8	.0	.0	.0	.0	.0	.0	14.8	.0	.0	.0	.0	.0	.0	85.2
NW	31.7	4.9	.0	.0	.0	.0	.0	36.6	19.5	.0	.0	.0	.0	.0	43.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	50.0	.0	.0	.0	.0	.0	50.0
TOT PCT	13.1	1.2	.0	.0	.0	.0	.0	14.3	6.0	6.0	.0	.0	.0	.0	75.0
TOT OBS:	84														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRTL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
0000	16.7	.0	.0	.0	.0	.0	.0	16.7	12.5	4.2	.0	.0	.0	.0	66.7
0600	12.5	.0	.0	.0	.0	.0	.0	12.5	4.2	.0	.0	.0	.0	.0	83.3
1200	5.3	.0	.0	.0	.0	.0	.0	5.3	5.3	10.5	.0	.0	.0	.0	78.9
1800	16.7	5.8	.0	.0	.0	.0	.0	22.2	5.6	11.1	.0	.0	.0	.0	66.7
TOT PCT	12.9	1.2	.0	.0	.0	.0	.0	14.1	7.1	5.9	.0	.0	.0	.0	74.1
TOT OBS:	85														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.3	4.0	1.6	.1	.0	.0		7.5	7.9	9.2	.0	6.4	4.0	5.7	.0	9.1	10.9	
NE	1.1	3.4	.7	.0	.0	.0		5.2	6.6	8.1	.0	2.5	.8	4.4	33.3	8.2	7.0	
E	1.2	3.9	1.5	.2	.0	.0		6.8	7.8	10.0	.0	6.3	1.2	5.5	16.7	7.3	9.8	
SE	2.2	14.2	12.8	1.6	.1	.0		30.9	11.0	34.8	.0	32.9	28.4	29.8	16.7	29.7	29.6	
S	2.0	7.4	4.3	.5	.0	.0		14.3	9.4	9.8	.0	14.5	21.4	17.2	.0	13.1	10.3	
SW	1.1	4.3	.6	.1	.0	.0		6.0	6.7	3.0	.0	5.4	11.4	7.7	16.7	4.6	4.4	
W	1.6	4.7	1.5	.1	.0	.0		7.9	7.6	5.1	100.0	7.0	13.8	10.9	16.7	5.4	5.2	
NW	1.7	8.6	5.0	.5	.0	.0		15.9	9.6	15.2	.0	17.5	15.8	14.9	.0	16.5	15.6	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	5.5							5.5	.0	5.0	.0	7.6	3.3	4.0	.0	5.9	7.1	
TOT OBS	972	1695	906	102	4	0	3239		8.7	564	1	565	516	528	3	528	524	
TOT PCT	17.7	31.1	29.0	3.1	.1	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	3.6	3.3	.6	.0	.0			7.5	7.9	9.2	5.2	5.6	10.0	
NE	3.2	1.8	.2	.0	.0			5.2	6.6	8.1	1.7	4.5	7.6	
E	3.7	2.3	.4	.1	.0			6.8	7.8	10.0	3.8	5.6	8.6	
SE	8.9	15.5	6.2	.4	.0			30.9	11.0	34.7	30.8	29.8	29.7	
S	5.1	7.2	1.8	.1	.0			14.3	9.4	9.7	17.8	17.1	11.7	
SW	3.7	2.0	.3	.0	.0			6.0	6.7	3.0	8.3	7.8	4.5	
W	3.9	3.5	.4	.0	.0			7.9	7.6	5.2	10.2	10.9	5.3	
NW	5.6	8.1	2.0	.2	.0			15.9	9.6	15.1	16.7	14.8	16.1	
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	
CALM	5.5							5.5	.0	5.0	5.6	4.0	6.5	
TOT OBS	1400	1427	386	26	0	3239			8.7	565	1081	331	1082	
TOT PCT	43.2	44.1	11.9	.8	.0			100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1891-1968  
(OVER-ALL) 1860-1968

OCTOBER

AREA 0001 SOUTHEAST SUMATRA  
3.75 101.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GNT)

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
00E03	5.0	13.3	30.1	23.8	2.8	.0
06E09	5.6	12.1	31.2	27.9	3.1	.1
12E15	4.0	12.4	33.9	26.4	3.4	.0
18E21	6.5	11.6	30.1	28.3	3.2	.3
TOT	178	395	1654	906	102	.4
PCT	5.5	12.2	51.1	28.0	3.1	.1

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	2.0	3.1	7.0	
NE	.0	.0	2.0	.0	6.8	
E	.0	2.3	.8	2.7	5.9	
SE	3.1	3.9	25.4	11.3	6.0	
S	.0	1.6	8.2	8.6	6.9	
SW	.0	.0	1.6	.3	7.3	
W	.0	1.6	2.7	1.6	5.7	
NW	.0	.0	2.7	12.5	7.5	
VAR	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	1.6	8.0	
TOT OBS	2	6	29	27	66	6.5
TOT PCT	3.1	9.4	45.3	42.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	1.2	2.0	.0	.0	.0	.0	2.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	
.0	.0	.0	1.6	.8	.0	1.2	.0	.0	.0	2.3	
.0	.8	.0	.0	10.2	5.5	.4	.0	.0	.0	27.0	
.0	3.5	.0	1.2	.0	2.3	.0	.0	.0	.0	11.3	
.0	.4	.0	.4	.0	.0	.0	.0	.0	.0	1.6	
.0	.0	.0	1.6	.0	.0	.0	.0	.0	.0	4.3	
.0	.0	.0	3.1	3.5	2.7	1.6	.0	.0	.0	4.3	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	1.6	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.6	10	8	2	.0	.0	.0	.0	
.0	4.7	.0	9.4	15.6	12.5	3.1	.0	.0	.0	54.7	66

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NM)	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.0	.0	.0	.0	.0	.0	.0	.0	.0
= OR >5000	.0	.0	.0	.0	.0	.0	.0	.0	.0
= OR >3500	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
= OR >2000	10.8	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
= OR >1000	20.0	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8
= OR >600	23.1	38.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5
= OR >300	23.1	38.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5
= OR >150	23.1	40.0	46.2	46.2	46.2	46.2	46.2	46.2	46.2
= OR >0	23.1	40.0	46.2	46.2	46.2	46.2	46.2	46.2	46.2
TOTAL	15	26	30	30	30	30	30	30	30

TOTAL NUMBER OF OBS: 65

PCT FREQ NH <5/8: 53.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL
3.0	3.0	18.2	19.7	10.6	9.1	12.1	6.1	18.2	.0	66

PERIOD: (PRIMARY) 1891-1968  
(OVER-ALL) 1860-1968

OCTOBER

AREA 0001 SOUTHEAST SUMATRA  
3.75 101.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.0	.0	.0	.3	1.8	.3	1.2	1.2	.0	.0	4.8	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.3	1.8	.3	1.2	1.2	.0	.0	4.8	.0
5<10	PCP	.9	1.2	.0	.9	1.5	.0	.0	2.7	.0	.0	7.1	.0
	NO PCP	.9	.0	.0	6.3	3.6	.3	1.2	1.5	.0	2.4	16.7	.0
	TOT %	1.8	1.2	.0	7.1	5.1	.3	1.2	4.2	.0	2.4	23.8	.0
10+	PCP	.6	.0	.0	1.2	.0	.0	.0	.6	.0	.0	2.4	.0
	NO PCP	1.9	3.9	8.0	33.0	8.9	1.8	9.7	6.3	.0	.0	69.0	.0
	TOT %	2.1	3.9	8.0	34.2	8.9	1.8	9.7	6.8	.0	.0	71.4	.0
TOT OBS													
TOT PCT		3.9	5.1	8.6	41.7	15.8	2.4	8.0	12.2	.0	2.4	100.0	84

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.4	.1	.0	.0	.5	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.4	.1	.0	.0	.5	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.1	.0	.0	.0	.0	.2	.0	.1	.0	.0	.3	.0
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.0	.0	.2	.0	.2	.0	.1	.0	.0	.5	.0
1<2	0-3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
	4-10	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.0
	11-21	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.2	.0	.0	.1	.1	.2	.0	.0	.0	.0	.5	.0
2<5	0-3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0
	4-10	.1	.1	.6	1.1	.3	.4	.2	.4	.0	.0	2.8	.0
	11-21	.0	.0	.0	.5	.3	.1	.4	.5	.0	.0	1.8	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.6	.1	.6	1.7	.6	.1	.6	.9	.0	.0	5.1	.0
5<10	0-3	.2	.0	.2	.4	.0	.0	.0	.1	.0	1.0	2.0	.0
	4-10	1.1	.6	.4	2.8	1.2	.6	1.2	1.3	.0	.0	9.4	.0
	11-21	.2	.1	.1	2.3	1.6	.0	.0	1.4	.0	.0	5.6	.0
	22+	.0	.0	.0	.1	.3	.4	.2	.0	.0	.0	.7	.0
	TOT %	1.5	.7	.7	5.7	3.1	.6	1.4	2.8	.0	1.2	17.7	.0
10+	0-3	.8	1.2	1.4	2.2	3.1	1.2	1.1	1.9	.0	4.0	16.7	.0
	4-10	2.2	3.3	4.6	13.7	7.7	2.7	3.8	5.3	.0	.0	43.2	.0
	11-21	.8	.3	.6	7.7	2.5	.1	.6	2.2	.0	.0	14.9	.0
	22+	.0	.0	.1	.6	.0	.0	.0	.2	.0	.0	.8	.0
	TOT %	3.8	4.8	6.7	24.2	13.2	4.0	5.4	9.6	.0	4.0	75.7	.0
TOT OBS													
TOT PCT		6.1	5.6	8.1	31.7	17.1	5.0	7.8	13.5	.0	5.1	100.0	604

## OCTOBER

 PERIOD: (PRIMARY) 1891-1968  
 (OVER-ALL) 1360-1968

 AREA 0001 SOUTHEAST SUMATRA  
 3.75 101.6E

TABLE 10

 PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH >4/8) AND  
 OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	13.6	22.7	4.5	.0	.0	.0	.0	40.9	59.1	22
06009	.0	14.3	.0	.0	.0	14.3	.0	.0	.0	.0	28.6	71.4	14
12015	.0	.0	.0	25.0	6.3	6.3	12.5	.0	.0	.0	50.0	50.0	16
18021	.0	7.1	.0	.0	28.6	28.6	.0	.0	.0	.0	64.3	35.7	14
TOT	0	3	0	7	10	8	2	0	0	0	30	36	66
PCT	.0	4.5	.0	10.6	15.2	12.1	3.0	.0	.0	.0	45.5	54.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.9	.9	.9	8.6	14.7	74.1	116
06009	.5	.0	.5	2.1	9.7	87.2	195
12015	1.0	1.0	.0	4.0	22.0	72.0	100
18021	.0	.5	.5	6.7	25.3	67.0	194
TOT	3	3	1	31	107	458	605
PCT	.5	.5	.2	5.1	17.7	75.7	100.0

TABLE 12

 CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
 CEILING HGT (FEET) NH >4/8) BY HOUR

HOUR (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	13.6	27.3	59.1	22
06009	.0	14.3	14.3	14.3	71.4	14
12015	.0	.0	25.0	25.0	50.0	16
18021	.0	7.7	7.7	61.5	30.8	13
TOT	0	3	10	20	35	65
PCT	.0	4.6	15.4	20.8	53.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.0	.0	33.3	35.1	3.5	41	71.9
75/79	.0	.0	.0	.0	.0	.0	12.3	8.8	12	21.1
70/74	.0	.0	.0	.0	.0	.0	1.8	5.3	4	7.0
TOTAL	0	0	0	0	0	19	28	10	57	100.0
PCT	.0	.0	.0	.0	.0	33.3	49.1	17.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
80/84	.9	.0	5.7	39.0	9.6	1.8	3.5	7.9	.0	3.5
75/79	3.5	2.2	1.8	.0	1.8	.0	3.1	8.8	.0	.0
70/74	1.3	.0	.0	3.9	1.3	.0	.0	.4	.0	.0
TOTAL	5.7	2.2	7.5	43.0	12.7	1.8	6.6	17.1	.0	3.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	89	87	84	81	76	74	73	80.3	356
06009	93	89	87	82	78	73	73	82.5	1060
12015	94	87	85	81	76	74	72	81.0	524
18021	88	86	83	80	76	73	70	79.8	1043
TOT	94	88	86	81	76	74	70	81.0	3183

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	25.0	45.0	30.0	85	20		
06009	.0	.0	.0	53.8	38.5	7.7	79	13		
12015	.0	.0	.0	15.4	76.9	7.7	83	13		
18021	.0	.0	.0	41.7	41.7	16.7	81	12		
TOT	0	0	0	19	29	10	82	58		

## OCTOBER

PERIOD: (PRIMARY) 1891-1968  
(OVER-ALL) 1860-1968

TABLE 17

AREA 0001 SOUTHEAST SUMATRA  
3.75 101.6EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	TOT	N FOG	NO FOG
4	.0	.0	.0	1.3	1	.0	1.3
3	.0	.0	1.3	.0	1	.0	1.3
2	.0	.0	2.6	.0	2	.0	2.6
1	.0	.0	7.7	.0	6	.0	7.7
0	.0	2.6	20.5	.0	18	.0	23.1
-1	.0	1.3	15.4	.0	13	.0	16.7
-2	1.3	7.7	11.5	.0	16	.0	20.5
-3	.0	5.1	2.6	.0	6	.0	7.7
-4	1.3	5.1	2.6	.0	7	.0	9.0
-5	1.3	3.8	.0	.0	4	.0	5.1
-6	1.3	1.3	.0	.0	2	.0	2.6
-7/-8	.0	2.6	.0	.0	2	.0	2.6
TOTAL	4		50		78	0	73
PCT		23	1		100.0		100.0
	5.1	29.5	64.1	1.3			

PERIOD: (OVER-ALL) 1963-1968

TABLE 13

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	25.0	.0	.0	.0	.0	25.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	25.0	.0	.0	.0	.0	25.0	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	33.3	.0	.0	.0	.0	33.3
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	33.3	.0	.0	.0	33.3
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-47	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	33.3	33.3	.0	.0	.0	66.7

PERIOD: (OVER-ALL) 1963-1968

OCTOBER

AREA 0001 SOUTHEAST SUMATRA  
3.75 101.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
47-50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-85	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	8.3	.0	.0	.0	.0	8.3	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-85	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	8.3	.0	.0	.0	.0	8.3	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	25.0	50.0	.0	.0	.0	.0	75.0	
1-2	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	25.0	.0	.0	.0	25.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-85	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	25.0	50.0	25.0	.0	.0	.0	100.0	

PERIOD: (OVER-ALL) 1949-1968

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	5.0	5.0	1.7	3.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9
6-7	.0	3.3	11.7	8.3	10.0	6.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	24
8-9	.0	.0	8.7	10.0	8.7	1.7	5.0	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19
10-11	.0	1.7	.0	3.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
INDEX	.0	3.3	3.3	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5
TOTAL	.0	8	16	15	12	5	3	1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	60
PCT	.0	13.3	26.7	25.0	20.0	8.3	5.0	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0



NOVEMBER

PERIOD: (PRIMARY) 1891-1971  
(OVER-ALL) 1861-1971

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	32.0	.0	.0	.0	.0	.0	.0	32.0	12.0	.0	.0	.0	.0	.0	56.0
NE	66.7	.0	.0	.0	.0	.0	.0	66.7	.0	.0	.0	.0	.0	.0	33.3
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	25.0	.0	.0	.0	.0	75.0
SE	10.4	.0	5.2	.0	.0	.0	.0	10.4	5.2	1.3	.0	.0	.0	.0	83.1
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SW	50.0	.0	.0	.0	.0	.0	.0	50.0	.0	.0	.0	.0	.0	.0	50.0
W	44.7	.0	.0	.0	.0	.0	.0	44.7	7.9	.0	.0	.0	.0	.0	47.4
NW	11.6	4.2	.0	.0	.0	.0	.0	15.8	14.7	.0	4.2	.0	.0	.0	65.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	50.0	.0	.0	.0	.0	50.0
TOT PCT	17.6	1.4	1.4	.0	.0	.0	.0	18.9	8.1	2.7	1.4	.0	.0	.0	68.9
TOT OBS:	74														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	11.8	5.9	.0	.0	.0	.0	.0	17.6	23.5	5.9	.0	.0	.0	.0	52.9
06009	14.3	.0	.0	.0	.0	.0	.0	14.3	.0	.0	3.6	.0	.0	.0	82.1
12015	11.8	.0	.0	.0	.0	.0	.0	11.8	5.9	5.9	.0	.0	.0	.0	76.5
18021	35.7	.0	7.1	.0	.0	.0	.0	35.7	7.1	.0	.0	.0	.0	.0	57.1
TOT PCT	17.1	1.3	1.3	.0	.0	.0	.0	18.4	7.9	2.6	1.3	.0	.0	.0	69.7
TOT OBS:	76														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WND DIR	WIND SPEED (KNOTS)						48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00					03	06	09	12	15	18	21
N	1.2	5.9	2.4	.3	.0	.0		9.8	8.6	12.7	.0	8.5	5.0	7.4	16.7	11.6	13.3
NE	1.0	3.4	.5	.0	.0	.0		5.0	6.5	9.1	.0	3.0	.6	3.3	.0	7.2	6.6
E	1.1	4.1	.6	.0	.0	.0		5.7	6.7	8.0	50.0	3.2	1.9	4.5	8.3	7.7	8.8
SE	2.3	10.8	5.3	.5	.0	.0		18.9	9.0	19.6	.0	22.6	18.1	16.6	8.3	18.0	18.5
S	1.7	8.4	2.1	.1	.0	.0		10.3	7.7	7.3	50.0	7.9	14.9	14.1	16.7	10.3	7.6
SW	1.2	4.5	.6	.0	.0	.0		6.3	6.4	2.2	.0	4.9	10.6	9.2	.0	5.5	5.9
W	1.6	6.8	2.6	.2	.1	.0		11.3	8.6	7.9	.0	9.4	17.9	14.7	16.7	9.9	8.3
NW	2.1	13.1	9.5	1.5	.0	.0		28.2	10.7	26.4	.0	30.8	26.6	25.5	53.3	23.3	24.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.5							6.5	.0	6.7	.0	9.6	4.4	4.7	.0	6.5	6.7
TOT OBS	570	1683	721	79	5	0	3058		8.2								
TOT PCT	18.6	55.0	23.6	2.6	.2	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	4.2	4.6	1.0	.0	.0		9.8	8.6	12.6	6.8	7.5	12.4		
NE	2.9	2.0	.1	.0	.0		5.0	6.5	9.1	1.9	3.2	6.9		
E	3.2	2.4	.1	.0	.0		5.7	6.7	8.2	2.6	4.6	8.3		
SE	7.4	9.8	1.6	.2	.0		18.9	9.0	19.5	20.5	16.5	18.2		
S	5.1	4.6	.0	.0	.0		10.3	7.7	7.5	11.2	14.1	9.0		
SW	3.9	2.3	.1	.0	.0		6.3	6.4	2.2	7.7	9.1	5.7		
W	5.4	4.7	.9	.2	.0		11.3	8.6	7.9	12.5	14.7	9.1		
NW	7.2	14.0	4.8	.2	.0		28.2	10.7	26.3	28.8	25.6	23.9		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	6.5						6.5	.0	6.7	7.5	4.7	6.8		
TOT OBS	1398	1359	282	19	0	3058		8.2	566	1041	1093	1018		
TOT PCT	45.7	44.4	9.2	.6	.0		100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1891-1971  
(OVER-ALL) 1861-1971

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	6.7	14.4	54.5	21.9	2.0	.4	.0	7.7	100.0	306
06009	7.1	11.2	54.2	25.6	1.9	.0	.0	8.3	100.0	1041
12015	4.7	13.2	54.4	25.6	2.0	.2	.0	8.4	100.0	493
18021	6.6	11.5	56.5	21.4	3.8	.2	.0	8.2	100.0	1-18
TOT	198	372	1683	721	79	5	0	8.2		3058
PCT	6.5	12.2	55.0	23.6	2.6	.2	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL CBS	MEAN CLOUD COVER
N	.0	.0	2.2	1.6		7.4
NE	.0	.0	.0	2.2		8.0
E	.0	.0	1.6	1.6		7.5
SE	.0	4.3	20.7	4.9		6.5
S	.0	.0	3.8	2.2		7.0
SW	.0	.0	2.2	.0		6.0
W	.0	.0	1.6	8.2		7.5
NW	2.2	.0	13.6	22.8		7.1
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	.0	4.3		8.0
TOT OBS	1	2	21	22	46	7.0
TOT PCT	2.2	4.3	45.7	47.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NM >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	1.6	.0	.0	.0	.0	.0	.0	2.2	
.0	.0	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	1.6	.0	.0	.0	.0	.0	1.6
.0	.0	.0	.0	13.0	5.4	.0	.0	.0	.0	.0	11.4
.0	.0	.0	.0	.0	1.6	.0	.0	.0	.0	.0	4.3
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2
.0	.0	.0	1.6	4.9	.0	.0	.0	.0	.0	.0	3.3
.0	.0	.0	1.1	6.0	4.3	4.3	.0	.0	.0	.0	22.8
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.3
.0	.0	1	2	11	6	2	.0	.0	.0	.0	24
.0	.0	2.2	4.3	23.9	13.0	4.3	.0	.0	.0	52.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.0	.0	.0	.0	.0	.0	.0	.0
>5000	.0	.0	.0	.0	.0	.0	.0	.0
>3500	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
>2000	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
>1000	23.9	39.1	41.3	41.3	41.3	41.3	41.3	41.3
>600	26.1	41.3	45.7	45.7	45.7	45.7	45.7	45.7
>300	26.1	41.3	47.8	47.8	47.8	47.8	47.8	47.8
>150	26.1	41.3	47.8	47.8	47.8	47.8	47.8	47.8
>0	26.1	41.3	47.8	47.8	47.8	47.8	47.8	47.8
TOTAL	12	19	22	22	22	22	22	22

TOTAL NUMBER OF OBS: 46

PCT FREQ NH <5/8: 52.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
2.1	2.1	10.6	23.4	12.8	6.5	14.9	10.6	14.9	.0	47

PERIOD: (PRIMARY) 1891-1971  
(OVER-ALL) 1861-1971

# NOVEMBER

AREA 0001 SOUTHEAST SUMATRA  
3.73 101.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	1.4	1.4	.0	.0	2.7	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	1.4	1.4	.0	.0	2.7	
2<5	PCP	2.7	1.4	.0	.0	.0	1.4	3.4	2.0	.0	.0	10.8	
	NO PCP	.0	.0	.0	.0	1.4	.0	.0	.0	.0	.0	1.4	
	TOT %	2.7	1.4	.0	.0	1.4	1.4	3.4	2.0	.0	.0	12.2	
5<10	PCP	.0	.0	.0	2.7	.0	.0	1.0	.3	.0	.0	4.1	
	NO PCP	3.4	.7	1.0	7.1	1.4	.0	5.4	8.1	.0	.0	27.0	
	TOT %	3.4	.7	1.0	9.8	1.4	.0	6.4	8.4	.0	.0	31.1	
10+	PCP	.0	.0	.0	.0	.0	.0	1.4	.0	.0	.0	1.4	
	NO PCP	2.4	.0	3.0	16.2	6.4	1.4	1.7	18.9	.0	2.7	52.7	
	TOT %	2.4	.0	3.0	16.2	6.4	1.4	1.7	20.3	.0	2.7	54.1	
TOT OBS													74
TOT PCT		8.4	2.0	4.1	26.0	9.1	2.7	12.8	32.1	.0	2.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.0	.0	.0	.2	.3	.0	.1	.3	.0	.0	.9	
	11-21	.1	.0	.1	.1	.3	.0	.2	.4	.0	.0	.9	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.1	.3	.3	.0	.3	.7	.0	.2	1.9	
2<5	0-3	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
	4-10	.3	.2	.2	.4	.7	.3	.9	.6	.0	.0	3.3	
	11-21	.3	.0	.0	.0	.0	.0	.3	.6	.0	.0	1.2	
	22+	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
	TOT %	.6	.2	.2	.4	.7	.3	1.3	1.4	.0	.0	5.0	
5<10	0-3	.1	.4	.2	.6	.1	.1	.2	.4	.0	.3	2.4	
	4-10	1.4	1.3	.7	1.6	.9	.7	1.9	4.0	.0	.0	12.5	
	11-21	.3	.2	.0	.7	.0	.3	.7	2.0	.0	.0	4.3	
	22+	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	
	TOT %	1.8	1.9	.9	2.9	1.0	1.1	2.9	6.5	.0	.3	19.4	
10+	0-3	1.0	1.1	.7	1.4	.8	1.0	2.3	2.0	.0	3.4	14.0	
	4-10	6.0	3.0	2.2	7.3	4.9	4.9	4.8	12.9	.0	.0	45.9	
	11-21	1.4	.0	.4	2.3	1.3	.3	1.3	6.4	.0	.0	13.3	
	22+	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	TOT %	8.4	4.2	3.2	11.1	7.0	6.2	8.4	21.2	.0	3.4	73.3	
TOT OBS													377
TOT PCT		11.0	6.2	4.4	14.7	9.0	7.6	12.9	29.9	.0	4.2	100.0	

## NOVEMBER

PERIOD: (PRIMARY) 1891-1971  
(OVER-ALL) 1861-1971AREA 0001 JTHEAST SUMATRA  
3.75 101.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HRUR (GMT)	000 149	150 249	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	6.3	31.3	6.3	.0	.0	.0	.0	50.0	16
06009	.0	.0	.0	.0	28.6	14.3	7.1	.0	.0	.0	50.0	14
12015	.0	.0	.0	12.5	25.0	.0	.0	.0	.0	.0	37.5	8
18021	.0	.0	12.5	.0	.0	37.5	.0	.0	.0	.0	50.0	8
TOT	0	0	1	2	11	6	2	0	0	0	22	46
PCT	.0	.0	2.2	4.3	23.9	13.0	4.3	.0	.0	.0	47.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HRUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	1.1	3.2	5.4	17.2	73.1	93
06009	.0	.0	1.5	2.0	14.8	81.6	196
12015	.0	.0	1.0	6.8	25.2	67.0	103
18021	.0	.0	2.1	6.9	23.4	67.6	188
TOT	0	1	11	29	115	424	580
PCT	.0	.2	1.9	5.0	19.8	73.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET) NH >4/8) BY HOUR

HRUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	18.8	37.5	43.8	16
06009	.0	.0	.0	50.0	50.0	14
12015	.0	.0	12.5	25.0	62.5	8
18021	.0	12.5	12.5	37.5	50.0	8
TOT	0	1	5	18	23	46
PCT	.0	2.2	10.9	39.1	50.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	2.8	2.8	.0	.0	2	5.6
80/84	.0	.0	.0	.0	2.8	25.0	16.7	16.7	22	41.1
75/79	.0	.0	.0	.0	.0	.0	25.0	8.3	12	33.3
TOTAL	0	0	0	0	2	10	15	9	36	100.0
PCT	.0	.0	.0	.0	5.6	27.8	41.7	25.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	2.8	1.4	1.4	.0	.0	.0	.0
80/84	.0	.0	2.1	20.8	6.3	1.4	4.2	26.4	.0	.0
75/79	4.9	.0	2.1	6.3	.0	.0	4.2	16.0	.0	.0
TOTAL	4.9	.0	4.2	29.9	7.6	2.8	8.3	42.4	.0	.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HRUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	91	86	84	80	74	74	70	80.1	503
06009	95	89	87	82	77	74	72	82.2	1030
12015	92	86	84	81	76	75	72	80.8	487
18021	92	85	83	80	75	73	72	79.5	1010
TOT	95	87	85	81	76	74	70	80.7	3030

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HRUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	6.7	66.7	26.7	87	15
06009	.0	.0	20.0	60.0	.0	20.0	78	10
12015	.0	.0	.0	40.0	40.0	20.0	83	5
18021	.0	.0	.0	16.7	50.0	33.3	87	6
TOT	0	0	2	10	15	9	84	36

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PERIOD: (PRIMARY) 1891-1971  
(OVER-ALL) 1861-1971AREA 0001 SOUTHEAST SUMATRA  
3.75 101.0E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	TOT	N FOG	W FOG
5	.0	.0	.0	1.4	1.4	2	.0	2.8
4	.0	.0	.0	2.8	1.4	3	.0	4.2
2	.0	.0	.0	5.6	1.4	5	.0	7.0
1	.0	.0	.0	4.2	1.4	4	.0	5.6
0	.0	.0	2.8	9.9	.0	9	.0	12.7
-1	.0	.0	4.2	15.3	.0	14	1.4	18.3
-2	.0	.0	4.2	5.6	.0	7	.0	9.9
-3	.0	.0	7.0	1.4	.0	6	.0	8.5
-4	.0	2.8	12.7	1.4	.0	12	.0	16.9
-5	.0	2.8	2.8	.0	.0	4	.0	5.6
-6	.0	1.4	.0	.0	.0	1	.0	1.4
-7/-8	.0	1.4	1.4	.0	.0	2	.0	2.8
-9/-10	.0	1.4	.0	.0	.0	1	.0	1.4
-11/-13	1.4	.0	.0	.0	.0	1	.0	1.4
TOTAL	1	7	25	34	4	71	1	70
PCT	1.4	9.9	35.2	47.9	5.6	100.0	1.4	98.6

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

PERIOD: (OVER-ALL) 1963-1971

NOVEMBER

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	25.0	.0	.0	.0	25.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	25.0	.0	.0	.0	25.0	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	33.3	.0	.0	.0	33.3	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	33.3	.0	.0	.0	33.3	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	100.0	.0	.0	.0	100.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	100.0	.0	.0	.0	100.0	.0

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	4.5	20.5	4.5	4.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	4
6-7	.0	2.3	15.9	13.6	9.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18	5
8-9	.0	.0	2.3	9.1	4.5	2.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	6
10-11	.0	.0	2.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	3
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	.0	.0	2.3	.0	2.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	5
TOTAL	.0	3	19	12	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	44	4
PCT	.0	6.8	43.2	27.3	20.5	2.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

DECEMBER

PERIOD: (PRIMARY) 1889-1970  
(OVER-ALL) 1859-1970

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	13.6	.0	.0	.0	.0	.0	.0	13.6	13.6	.0	.0	.0	.0	.0	72.7
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	16.7	.0	16.7	.0	.0	.0	66.7
SE	.0	8.0	.0	.0	.0	.0	.0	8.0	.0	8.0	.0	.0	.0	.0	84.0
S	46.2	.0	.0	.0	.0	.0	.0	46.2	.0	.0	.0	.0	.0	.0	53.8
SW	87.5	.0	.0	.0	.0	.0	.0	87.5	.0	.0	.0	.0	.0	.0	12.5
W	13.5	15.4	.0	.0	.0	.0	.0	28.8	.0	.0	.0	.0	.0	.0	71.2
NW	13.6	5.2	.0	.0	.0	.0	.0	18.8	8.4	2.6	.0	.0	.0	.0	72.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	.0	.0	.0	80.0
TOT PCT	12.6	5.7	.0	.0	.0	.0	.0	18.4	5.7	3.4	1.1	.0	.0	.0	72.4
TOT OBS:	87														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	18.2	9.1	.0	.0	.0	.0	.0	27.3	13.6	.0	4.5	.0	.0	.0	54.5
06009	7.1	3.6	.0	.0	.0	.0	.0	10.7	3.6	.0	.0	.0	.0	.0	85.7
12015	13.0	4.3	.0	.0	.0	.0	.0	17.4	4.3	.0	.0	.0	.0	.0	73.9
18021	17.6	5.9	.0	.0	.0	.0	.0	23.5	.0	11.8	.0	.0	.0	.0	70.6
TOT PCT	13.3	5.6	.0	.0	.0	.0	.0	18.9	5.6	3.3	1.1	.0	.0	.0	72.2
TOT OBS:	90														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	1.2	6.1	3.1	.6	*	.0		11.0	9.4	16.5	.0	10.2	5.6	6.4	.0	12.0	15.2
NE	1.0	3.2	.6	.0	.0	.0		4.8	6.1	8.1	.0	3.3	1.4	2.9	.0	6.8	6.2
E	1.8	2.4	.3	*	.0	.0		4.5	5.3	6.8	.0	3.2	2.1	3.1	.0	6.1	5.6
SE	1.9	5.3	1.3	*	.0	.0		8.6	6.8	9.0	.0	7.8	6.2	8.7	66.7	8.0	11.3
S	1.5	3.0	.5	*	.0	.0		5.7	6.0	3.2	.0	5.3	9.4	7.5	.0	5.2	3.4
SW	1.6	4.0	.9	*	.0	.0		6.5	6.6	3.7	.0	5.1	10.6	9.8	.0	5.8	4.4
W	2.1	8.0	3.0	.5	.1	.0		13.7	8.6	8.5	.0	14.0	21.3	16.7	.0	13.0	9.2
NW	2.9	17.1	13.6	3.3	.2	.0		37.1	11.3	38.5	.0	42.2	38.0	35.8	33.3	32.8	35.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	8.1							8.1	.0	5.6	.0	8.9	5.3	9.2	.0	10.4	9.6
TOT OBS	676	1506	706	136	12	0	3036		8.3	517	0	516	505	502	3	492	501
TOT PCT	22.3	49.6	23.3	4.5	.4	.0		100.0		100.0	.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	4.5	5.1	1.3	.1	.0		11.0	9.4	16.5	7.9	6.4	13.6	
NE	3.3	1.4	.1	.0	.0		4.8	6.1	8.1	2.4	2.9	6.5	
E	3.3	1.1	.1	.0	.0		4.5	5.3	6.8	2.6	3.1	5.9	
SE	4.9	3.3	.3	.0	.0		8.6	6.8	9.0	7.1	9.0	9.7	
S	3.8	1.8	*	.0	.0		5.7	6.0	3.2	7.3	7.4	4.3	
SW	4.1	2.2	.2	.0	.0		6.5	6.6	3.7	7.8	9.8	5.1	
W	6.5	5.8	1.3	.2	.0		13.7	8.6	8.5	17.6	16.6	11.1	
NW	10.7	18.2	7.2	1.0	.0		37.1	11.3	38.5	40.1	35.7	34.0	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	8.1						8.1	.0	5.6	7.1	9.1	10.0	
TOT OBS	1493	1179	321	42	1	3036		8.3	517	1021	505	993	
TOT PCT	49.2	38.8	10.6	1.4	*		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1889-1970  
(OVER-ALL) 1855-1970

DECEMBER

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	5.6	15.1	48.7	26.3	4.1	.2	.0	8.5	100.0	517
06009	7.1	14.1	50.8	23.2	4.2	.5	.0	8.3	100.0	1021
12015	9.1	14.7	48.5	22.2	5.5	.0	.0	8.3	100.0	505
18021	10.0	13.4	49.3	22.3	4.4	.6	.0	8.2	100.0	993
TOT	247	429	1506	706	136	12	0	8.3		3036
PCT	8.1	14.1	49.6	23.3	4.5	.4	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	6.3	1.3		6.4
NE	.0	.4	.8	.0		5.0
E	1.7	2.9	1.7	2.9		4.7
SE	1.7	.0	3.8	3.8		6.2
S	.0	.0	2.9	.0		6.0
SW	.0	.0	.0	2.5		8.0
W	.0	5.0	6.3	5.8		6.1
NW	1.7	1.7	13.3	25.4		6.9
VAR	.0	.0	.0	.0		.0
CALM	1.7	.0	5.0	1.7		5.4
TOT OBS	4	6	24	26	60	6.3
TOT PCT	6.7	10.0	40.0	43.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	1199	1999	3499	4999	6499	7999			
.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.3
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.2
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.2
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.9
.0	.0	.0	.0	2.5	.0	.0	.0	.0	.0	.0	.0
.0	1.7	1.7	5.8	.0	.0	.0	.0	.0	.0	.0	6.3
.0	.4	6.7	5.0	8.3	3.3	.0	.0	.0	.0	.0	18.3
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.3
.0	2	5	4	10	2	0	0	0	0	0	37
.0	3.3	8.3	6.7	16.7	3.3	.0	.0	.0	.0	61.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.0	.0	.0	.0	.0	.0	.0	.0
>5000	.0	.0	.0	.0	.0	.0	.0	.0
>3500	.0	.0	.0	.0	.0	.0	.0	.0
>2000	3.3	4.9	4.9	4.9	4.9	4.9	4.9	4.9
>1000	8.2	18.0	18.0	18.0	19.7	21.3	21.3	21.3
>600	11.5	24.6	24.6	24.6	26.2	27.9	27.9	27.9
>300	16.4	32.8	32.8	32.8	34.4	36.1	36.1	36.1
>150	16.4	34.4	36.1	36.1	37.7	39.3	39.3	39.3
>0	16.4	34.4	36.1	36.1	37.7	39.3	39.3	39.3
TOTAL	10	21	22	22	23	24	24	24

TOTAL NUMBER OF OBS: 61

PCT FREQ NH <5/8: 60.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
2.9	5.8	13.0	21.7	15.9	5.8	10.1	7.2	17.4	.0	69



PERIOD: (PRIMARY) 1889-1970  
(OVER-ALL) 1855-1970

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.3	.9	.0	.0	.0	1.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.3	.9	.0	.0	.0	1.1	
1/2<1	PCP	.0	.0	.0	.0	.0	1.1	.0	.0	.0	.0	1.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	1.1	.0	.0	.0	.0	1.1	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.9	.0	.0	.0	.6	.6	.0	1.4	.0	.0	3.4	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.9	.0	.0	.0	.6	.6	.0	1.4	.0	.0	3.4	
5<10	PCP	.0	.0	.0	1.1	1.1	.0	3.4	3.4	.0	.0	9.2	
	NO PCP	2.0	.0	2.0	7.2	.0	.3	2.3	9.2	.0	2.3	25.3	
	TOT %	2.0	.0	2.0	8.3	1.1	.3	5.7	12.6	.0	2.3	34.5	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	3.4	.0	.0	3.4	
	NO PCP	3.4	1.4	4.9	6.0	2.0	.0	8.3	26.7	.0	3.4	56.3	
	TOT %	3.4	1.4	4.9	6.0	2.0	.0	8.3	30.2	.0	3.4	59.8	
TOT OBS													87
TOT PCT		6.3	1.4	6.9	14.4	3.7	2.3	14.9	44.3	.0	5.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.3	
	11-21	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.2	.3	.0	.0	.0	.5	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
	TOT %	.1	.1	.0	.0	.0	.2	.0	.2	.0	.0	.5	
1<2	0-3	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2	
	4-10	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	
	11-21	.2	.0	.0	.0	.0	.0	.2	.2	.0	.0	.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.0	.0	.0	.0	.1	.3	.2	.0	.0	.8	
2<5	0-3	.1	.0	.0	.0	.0	.1	.1	.0	.0	.0	.3	
	4-10	.2	.0	.0	.0	.0	.0	.3	.2	.0	.0	1.3	
	11-21	.2	.1	.0	.0	.1	.1	.0	.3	.0	.0	.8	
	22+	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
	TOT %	.6	.6	.0	.0	.1	.2	.4	.7	.0	.0	2.6	
5<10	0-3	.4	.2	.2	.2	.0	.0	.1	.4	.0	.8	2.3	
	4-10	.7	.5	.2	1.0	.4	.3	1.2	2.3	.0	.0	6.6	
	11-21	.2	.0	.0	.5	.0	.0	.6	1.9	.0	.0	3.2	
	22+	.0	.0	.0	.0	.0	.0	.1	.4	.0	.0	.5	
	TOT %	1.3	.6	.4	1.7	.4	.3	2.0	5.1	.0	.8	12.6	
10+	0-3	1.0	1.8	2.7	1.5	1.8	1.8	2.6	2.2	.0	5.6	20.9	
	4-10	6.2	3.1	1.9	4.5	3.6	2.9	6.6	17.4	.0	.0	46.1	
	11-21	2.5	.3	.2	.4	.2	.3	1.7	9.3	.0	.0	14.8	
	22+	.1	.0	.0	.0	.0	.0	.0	1.2	.0	.0	1.3	
	TOT %	9.7	5.2	4.8	6.4	5.5	5.0	10.8	30.1	.0	5.6	83.1	
TOT OBS													821
TOT PCT		11.9	6.5	5.2	8.1	6.0	5.8	13.8	36.3	.0	6.4	100.0	

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PERIOD: (PRIMARY) 1889-1970  
(OVER-ALL) 1855-1970

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	5.3	5.3	10.5	10.5	5.3	.0	.0	.0	.0	36.8	63.2	19
06009	.0	.0	5.0	5.0	20.0	5.0	.0	.0	.0	.0	35.0	65.0	20
12015	.0	.0	5.9	.0	23.5	.0	.0	.0	.0	.0	29.4	70.6	17
18021	.0	11.1	22.2	11.1	.0	11.1	.0	.0	.0	.0	55.6	44.4	9
TOT	0	2	5	4	10	3	0	0	0	0	24	41	65
PCT	.0	3.1	7.7	6.2	15.4	4.6	.0	.0	.0	.0	36.9	63.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.9	.0	.0	3.6	12.5	83.0	112
06009	.0	.0	.5	.5	11.9	87.1	202
12015	.0	2.7	.0	1.8	15.5	80.0	110
18021	1.0	.0	2.0	4.5	12.0	80.5	200
TOT	3	3	5	16	79	518	624
PCT	.5	.5	.8	2.6	12.7	83.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	15.8	26.3	10.5	63.2	19
06009	.0	5.0	10.0	25.0	65.0	20
12015	.0	14.3	14.3	21.4	64.3	14
18021	.0	37.5	50.0	12.5	37.5	8
TOT	0	9	13	11	37	61
PCT	.0	14.8	21.3	18.0	60.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	3.1	1.6	.0	.0	3	4.7
80/84	.0	.0	.0	.0	.0	17.2	45.3	.0	40	62.5
75/79	.0	.0	.0	.0	.0	1.6	15.6	14.1	20	31.3
70/74	.0	.0	.0	.0	.0	.0	.0	1.6	1	1.6
TOTAL	0	0	0	0	2	13	39	10	64	100.0
PCT	.0	.0	.0	.0	3.1	20.3	60.9	15.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	.0	.0	.0	1.6	.0	.0	3.1
80/84	3.5	1.2	7.4	11.3	2.7	.4	7.4	25.4	.0	3.1
75/79	2.3	.0	1.2	.4	.0	.4	8.2	17.2	.0	1.6
70/74	.0	.0	.0	.0	.8	.8	.0	.0	.0	.0
TOTAL	5.9	1.2	8.6	11.7	3.5	1.6	17.2	42.6	.0	7.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	91	86	84	80	76	74	71	80.1	512
06009	94	89	87	82	77	75	73	82.2	1000
12015	90	87	84	81	77	75	74	80.9	498
18021	88	86	83	80	76	74	73	79.8	985
TOT	94	88	85	81	76	75	71	80.8	2995

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	.0	13.6	63.6	22.7	86	22	22
06009	.0	.0	11.1	27.8	50.0	11.1	80	18	18	18
12015	.0	.0	.0	31.3	62.5	6.3	82	16	16	16
18021	.0	.0	.0	10.0	70.0	20.0	87	10	10	10
TOT	0	0	2	14	40	10	83	66	66	66

PERIOD: (PRIMARY) 1889-1970  
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	TOT	N FOG	NO FOG
9/10	.0	.0	1.3	.0	1	.0	1.3
7/8	.0	.0	1.3	.0	1	.0	1.3
6	.0	1.3	.0	.0	1	.0	1.3
4	.0	.0	1.3	1.3	2	.0	2.5
3	.0	.0	2.5	.0	2	.0	2.5
2	.0	.0	2.5	2.5	4	.0	5.0
1	.0	3.8	1.3	1.3	5	.0	6.3
0	.0	5.0	11.3	1.3	14	.0	17.5
-1	.0	2.5	11.3	1.3	12	.0	15.0
-2	.0	11.3	7.5	.0	15	1.3	17.5
-3	1.3	5.0	3.8	.0	8	.0	10.0
-4	.0	3.8	.0	.0	3	.0	3.8
-5	.0	5.0	.0	.0	4	.0	5.0
-6	.0	3.8	.0	.0	3	.0	3.8
-7/-8	2.5	.0	.0	.0	2	.0	2.5
-9/-10	2.5	.0	1.3	.0	3	.0	3.8
TOTAL	5	33	36	6	80	1	79
PCT	6.3	41.3	45.0	7.5	100.0	1.3	98.6

PERIOD: (OVER-ALL) 1963-1970

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
1	.0	10.3	.0	.0	.0	.0	10.3	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	10.3	.0	.0	.0	.0	10.3	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
1	.0	5.9	.0	.0	.0	.0	11.8	.0	5.9	.0	.0	.0	.0	5.9
1-2	.0	4.4	.0	.0	.0	.0	4.4	.0	7.4	5.9	.0	.0	.0	13.2
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	5.9	10.3	.0	.0	.0	.0	16.2	.0	13.2	5.9	.0	.0	.0	19.1

PERIOD: (OVER-ALL) 1963-1970

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL
<1	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	1.5	.0	.0	.0	.0	1.5	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	.0	.0	.0	1.5	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	1.5	1.5	.0	.0	.0	2.9	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL
<1	4.4	.0	.0	.0	.0	.0	4.4	1.5	1.5	.0	.0	.0	.0	2.9	
1-2	.0	16.2	.0	.0	.0	.0	16.2	.0	5.9	5.9	.0	.0	.0	11.8	
3-4	.0	.0	4.4	.0	.0	.0	4.4	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.4	16.2	4.4	.0	.0	.0	25.0	1.5	7.4	5.9	.0	.0	.0	14.7	88.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	23.5	23.5	.0	.0	.0	.0	47.1	085
1-2	.0	75.3	11.8	.0	.0	.0	47.1	
3-4	.0	.0	5.9	.0	.0	.0	5.9	
5-6	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	23.5	58.8	17.6	.0	.0	.0	100.0	17

PERIOD: (OVER-ALL) 1949-1970

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	5.1	20.3	6.8	3.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21
6-7	.0	5.1	11.9	8.5	5.1	.0	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19
8-9	.0	.0	5.4	5.1	.0	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6
10-11	.0	.0	.0	1.7	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
312	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
INDET	16.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	11
TOTAL	17	15	13	11	4	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	59
PCT	22.0	25.4	22.0	18.6	6.8	1.7	.0	.0	1.7	.0	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1889-1973  
(OVER-ALL) 1854-1973

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST PLWG SNOW	NO SIG WEA
N	12.0	1.3	.0	.0	.0	.0	.0	13.3	8.4	3.2	.0	.0	.0	.0	75.1
NE	15.7	1.3	2.8	.0	.0	.0	.0	19.4	4.2	3.6	.0	.0	.0	.0	76.1
E	4.4	4.3	2.8	.0	.0	.0	.0	11.4	3.2	4.1	1.4	.0	.0	.0	79.9
SE	2.7	2.3	1.4	.0	.0	.0	.0	6.0	2.0	4.1	.0	.0	.9	.9	86.5
S	5.6	.9	.0	.0	.0	.0	.0	6.5	.0	1.7	.0	.0	.0	.0	91.8
SW	15.3	1.2	.0	.0	.0	.0	.0	16.5	3.8	1.0	.0	.0	.0	.0	78.7
W	18.0	2.6	.7	.0	.0	.0	.0	21.3	8.2	1.4	.0	.0	.0	.0	61.7
NW	16.7	4.9	2.1	.0	.0	.0	.0	23.7	10.5	.7	.4	.0	.0	.0	64.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	8.3	2.8	.0	.0	.0	.0	.0	11.1	4.2	9.6	.0	.0	.0	.0	75.1
TOT PCT	8.9	3.6	1.5	.0	.0	.0	.0	13.8	5.1	3.6	.2	.0	.2	.2	77.5
TOT OBS	821														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST PLWG SNOW	NO SIG WEA
00003	11.0	5.7	1.7	.0	.0	.0	.0	18.4	8.5	3.2	.4	.0	.0	.5	69.6
06009	7.0	2.3	.7	.0	.0	.0	.0	10.0	5.5	.0	.3	.0	.5	.0	83.7
12015	5.2	1.0	.0	.0	.0	.0	.0	6.2	1.8	5.1	.0	.0	.0	.0	86.9
18021	11.9	5.9	5.0	.0	.0	.0	.0	22.1	3.1	6.6	.0	.0	.0	.0	69.9
TOT PCT	8.7	3.7	1.6	.0	.0	.0	.0	14.0	5.1	3.5	.2	.0	.2	.2	77.5
TOT OBS	841														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-23	34-47	00	03					06	09	12	15	18	21		
N	1.5	5.6	1.8	.2	.	.0	9.1	7.9	13.2	11.1	8.2	3.9	5.8	6.6	10.8	12.9			
NE	1.3	3.7	.5	.	.0	.0	5.5	6.1	9.4	.0	3.0	1.2	3.5	9.4	7.5	8.2			
E	1.5	4.6	1.0	.1	.	.0	7.2	6.6	10.6	10.4	6.3	2.4	4.8	19.9	8.2	10.4			
SE	2.5	11.9	7.1	.9	.	.0	22.1	8.5	23.7	16.0	24.1	20.7	22.1	17.9	22.0	22.1			
S	1.8	5.9	2.0	.2	.0	.0	9.9	7.2	5.6	4.2	9.0	16.4	12.5	12.2	9.4	6.8			
SW	1.3	3.8	.6	.1	.	.0	5.7	6.4	3.0	5.6	5.0	10.8	7.7	2.6	4.5	3.6			
W	1.6	5.5	1.8	.3	.	.0	9.3	8.0	5.8	8.3	8.3	15.7	12.3	12.3	7.6	6.1			
NW	2.4	11.8	6.9	1.3	.1	.0	22.4	9.7	21.8	11.1	25.7	23.6	22.1	10.7	19.8	21.4			
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
CALM	8.4						8.4	.0	6.9	.0	10.3	5.4	9.3	.0	10.2	6.6			
TOT OBS							36695		6205	13	6336	5979	6075	35	5985	6138			
TOT PCT	22.5	52.9	21.6	2.9	.1	.0		100.0	100.0	56.7	100.0	100.0	100.0	91.7	100.0	100.0			

TABLE 4

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+						00	03	06	12	21
N	4.5	3.9	.7	.0	.0			9.1	7.9	13.2	6.1	5.8	11.8		
NE	3.7	1.7	.1	.0	.0			5.5	6.1	9.4	2.1	3.5	7.9		
E	4.3	2.6	.5	.0	.0			7.2	6.6	10.7	4.4	4.9	9.3		
SE	8.9	10.9	3.1	.1	.0			22.5	8.5	23.7	22.4	22.1	22.0		
S	5.1	4.2	.7	.0	.0			9.9	7.2	5.6	12.6	12.5	8.1		
SW	3.1		.2	.0	.0			5.7	6.4	3.0	7.8	7.6	4.0		
W	4.6	3.8	.8	.1	.0			9.3	8.0	5.8	12.0	12.3	6.6		
NW	7.8	10.8	3.4	.3	.0			22.4	9.7	21.8	24.7	22.0	20.6		
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0		
CALM	8.4							8.4	.0	6.9	7.9	9.2	9.3		
TOT OBS						36696			7.8	6218	12315	6040	12123		
TOT PCT	90.4	39.7	9.2	.7	.0			100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1889-1973  
(OVER-ALL) 1854-1973

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
0000	6.9	14.8	54.7	20.8	2.6	.1	.0	7.7	100.0	6218
0600	7.9	14.2	52.6	22.2	2.9	.1	.0	7.9	100.0	12315
1200	9.2	13.4	52.0	22.1	3.2	.1	.0	7.9	100.0	6040
1800	9.3	13.7	52.6	21.2	2.9	.2	.0	7.7	100.0	12123
TOT								7.8		36896
PCT	8.4	14.0	52.9	21.6	2.9	.1	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.3	1.2	3.1	1.5		5.9
NE	.1	.1	2.1	.9		6.4
E	1.2	2.5	3.3	2.1		5.1
SE	2.0	6.6	15.2	6.1		5.5
S	.9	1.2	3.0	1.4		5.3
SW	.1	.7	1.9	1.2		6.3
W	.7	1.7	4.2	4.2		5.2
NW	.9	1.4	10.4	11.4		6.6
VAR	.0	.0	.0	.0		.0
CALM	.7	1.6	2.4	1.0		5.7
TOT OBS					528	5.9
TOT PCT	6.8	14.9	45.6	30.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 599	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.1	.0	.3	.7	.5	.2	.2	.1	.0	4.0	
NE	.0	.0	.3	.0	.8	.1	.0	.0	.2	.0	1.9	
E	.0	.0	.2	.3	.8	.4	.1	.0	.0	.0	7.3	
SE	.0	.5	.0	.7	5.0	2.6	.1	.0	.0	.0	21.1	
S	.0	.3	.0	.1	1.0	.6	.1	.0	.0	.0	4.4	
SW	.0	.0	.2	.5	.7	.3	.0	.0	.0	.0	2.2	
W	.0	.3	.6	1.4	2.0	.4	.1	.0	.0	.0	6.0	
NW	.0	.0	1.0	2.6	4.7	1.9	.8	.6	.0	.0	12.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.8	.4	.0	.2	.0	.0	.0	5.3	
TOT OBS												528
TOT PCT	.0	1.1	2.3	6.7	16.0	6.7	1.6	.7	.4	.0	64.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NH) = OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.4	.4	.4	.4	.4	.4	.4	.4
= OR >5000	.9	1.1	1.1	1.1	1.1	1.1	1.1	1.1
= OR >3500	2.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7
= OR >2000	7.0	9.0	9.3	9.4	9.4	9.4	9.4	9.4
= OR >1000	16.6	22.9	24.6	24.9	25.1	25.2	25.2	25.2
= OR >600	20.5	28.9	31.9	32.3	32.4	32.5	32.5	32.5
= OR >300	21.1	30.3	34.2	34.5	34.6	34.8	34.8	34.8
= OR >150	21.1	30.3	35.3	35.6	35.7	35.9	35.9	35.9
= OR >0	21.1	30.8	35.3	35.6	35.7	35.9	35.9	35.9

TOTAL NUMBER OF OBS: 534

PCT FREQ NH <5/8: 64.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
2.9	8.7	20.5	17.5	14.7	9.3	8.3	5.5	12.7	.0	576

PERIOD: (PRIMARY) 1869-1973  
(OVER-ALL) 1854-1973

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OF NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	
1/2<1	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
1<2	PCP	.0	.0	.2	.0	.1	.7	.2	.1	.0	.0	.6	
	NO PCP	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.2	.2	.1	.0	.2	.1	.0	.0	.8	
2<5	PCP	.4	.2	.9	.7	.2	.7	1.6	.0	.3	5.2		
	NO PCP	.0	.0	.0	.0	.3	.1	.3	.2	.0	.0	.9	
	TOT %	.4	.2	.9	.7	.5	.8	1.9	.2	.3	6.0		
5<10	PCP	.7	.3	.3	1.3	.2	.1	.9	2.1	.0	.7	5.4	
	NO PCP	1.7	.5	1.3	4.4	2.1	1.1	2.4	3.9	.0	.6	18.1	
	TOT %	1.9	.9	1.6	5.7	2.4	1.2	3.3	6.0	.0	.6	23.5	
10+	PCP	.2	.4	.2	.2	.0	.1	.3	.9	.0	.0	2.3	
	NO PCP	4.4	2.9	7.2	21.7	5.7	2.5	5.7	13.5	.0	5.8	67.1	
	TOT %	4.6	3.3	7.4	21.9	5.7	2.6	6.1	14.4	.0	5.8	69.4	
TOT OBS													
TOT PCT													
		6.9	4.4	10.0	28.5	8.2	4.3	10.6	22.4	.0	4.7	100.0	820

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.0	.0	.0	.0	.1	.1	.1	.0	.0	.5	
	11-21	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.1	.1	.1	.2	.2	.0	.0	.9	
2<5	0-3	.1	.0	.1	.0	.0	.0	.0	.0	.0	.1	.3	
	4-10	.2	.2	.2	.2	.1	.1	.2	.4	.0	.0	1.5	
	11-21	.1	.0	.0	.2	.1	.0	.1	.3	.0	.0	.9	
	22+	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	TOT %	.4	.2	.3	.4	.2	.1	.4	.4	.0	.1	2.9	
5<10	0-3	.2	.1	.1	.2	.1	.2	.1	.3	.0	.5	1.9	
	4-10	.9	.4	.4	1.4	.7	.4	.9	1.5	.0	.0	6.7	
	11-21	.2	.0	.1	1.1	.4	.1	.3	1.1	.0	.0	3.2	
	22+	.0	.0	.0	.1	.0	.0	.1	.1	.0	.0	.4	
	TOT %	1.3	.6	.7	2.8	1.2	.7	1.4	3.0	.0	.5	12.1	
10+	0	1.6	1.6	1.8	2.3	1.7	1.3	1.6	2.1	.0	5.8	19.8	
	4	4.9	2.5	4.1	11.2	5.8	4.3	4.5	10.3	.0	.0	47.7	
	11	1.1	.1	.5	6.6	1.5	.2	.9	4.5	.0	.0	15.2	
	22	.0	.0	.0	.4	.0	.0	.0	.4	.0	.0	1.0	
	TOT %	7.6	5.2	6.4	20.6	9.1	4.8	7.0	17.2	.0	5.8	93.7	
TOT OBS													
TOT PCT													
		9.4	6.0	7.4	23.9	10.6	5.7	9.1	21.4	.0	6.4	100.0	7097

PERIOD: (PRIMARY) 1889-1973  
(OVER-ALL) 1634-1973

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3.75 101.6E

TABLE 10

PERCENT FREQUENCY OF CRUISING HEIGHTS (FEET-NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00203	.0	1.1	2.7	8.1	17.5	4.2	1.0	.6	1.0	.0	36.3	63.7	185
06209	.0	1.2	.8	3.5	10.8	7.9	1.5	1.0	.0	.0	26.7	73.3	172
12215	.0	.0	1.5	6.9	12.5	5.7	1.8	.7	.0	.0	29.1	70.9	110
18221	.0	2.6	3.8	11.0	17.7	8.4	1.8	.0	.0	.0	45.3	54.7	94
TOT													561
PCT	.0	1.0	2.1	6.9	15.0	6.5	1.5	.7	.3	.0	34.0	66.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00203	.2	.2	.9	4.0	12.3	82.4	1265
06209	.1	.0	.6	.9	8.8	89.7	2322
12215	.2	.6	.6	2.7	14.3	81.7	1218
18221	.4	.2	1.3	4.4	14.6	79.1	2313
TOT							7118
PCT	.2	.2	.9	2.9	12.3	83.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET-NM >4/8) BY HOUR

HOUR (GMT)	<150 <500D	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00203	.0	4.4	13.8	23.0	61.2	177
06209	.0	2.0	6.9	20.7	72.4	167
12215	.0	2.2	11.9	19.8	68.3	104
18221	.0	11.2	29.7	25.5	44.8	86
TOT						334
PCT	.0	3.9	14.0	22.9	63.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	.0	.0	.2	.0	.7		.2
90/94	.0	.0	.0	.0	.7	.0	.0	.0		.7
85/89	.0	.0	.0	.0	1.9	3.9	.8	.3		6.9
80/84	.0	.0	.0	.0	1.7	28.3	38.4	4.2		72.6
75/79	.0	.0	.0	.0	.2	.8	10.4	7.5		18.8
70/74	.0	.0	.0	.0	.0	.0	.1	.6		.7
TOTAL									463	100.0
PCT	.0	.0	.0	.0	4.5	33.1	49.8	12.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
90/94	.1	.2	.4	.0	.0	.0	.0	.0	.0	.0
85/89	.2	.0	.9	3.0	.6	.8	.3	.5	.0	.4
80/84	3.2	1.7	6.6	25.4	4.9	3.3	7.9	16.1	.0	3.6
75/79	1.4	1.3	1.6	2.6	.3	.5	3.5	6.4	.0	1.3
70/74	.1	.0	.0	.3	.2	.1	.0	.0	.0	.0
TOTAL	5.0	3.0	9.2	31.6	6.0	4.6	11.9	23.0	.0	5.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00203	94	87	85	81	77	74	70	80.9	6120
06209	97	90	87	83	79	76	72	83.0	12020
12215	94	87	85	82	78	75	70	81.8	3927
18221	92	86	84	81	78	74	70	80.4	11928
TOT	97	88	86	82	77	75	70	81.6	25995

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00203	.0	.0	.0	.0	.0	.0	.0	.0	84	181
06209	.0	.0	.0	10.6	46.4	33.0	10.1	.9	79	142
12215	.0	.0	.0	5.0	39.8	43.3	11.9	.9	81	89
18221	.0	.0	.0	2.1	24.0	63.2	10.7	.9	83	85
TOT	0	0	0	18	157	243	59	82	477	



PERIOD: (PRIMARY) 1989-1973  
(OVER-ALL) 1854-1973

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TABLE 17

AREA 0001 SOUTHEAST SUMATRA  
3.75 101.6E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	TOT	H FOG	40 FOG
9/10	.0	.0	.0	.1	.0	.0	1	.0	.1
7/8	.0	.0	.0	.2	.0	.1	3	.0	.3
6	.0	.0	.1	.0	.2	.2	3	.0	.5
5	.0	.0	.0	.2	.2	.0	4	.0	.4
4	.0	.0	.0	.4	.3	.3	10	.0	1.3
3	.0	.0	.0	.8	.5	.0	10	.0	1.3
2	.0	.0	.0	2.0	1.6	.2	29	.0	3.8
1	.0	.0	.5	3.7	2.0	.0	45	.0	6.1
0	.0	.1	1.4	14.5	1.5	.0	136	.0	17.6
-1	.0	.0	2.6	16.8	.9	.0	146	.1	20.2
-2	.0	.3	6.3	14.9	.5	.0	180	.1	21.5
-3	.0	.1	3.7	4.0	.0	.0	60	.0	7.8
-4	.0	.9	6.5	3.7	.0	.0	85	.0	11.1
-5	.0	.8	2.6	.9	.0	.0	31	.0	3.9
-6	.0	.5	1.3	.0	.0	.0	15	.0	1.8
-7/-8	.0	.6	.9	.0	.0	.0	11	.0	1.5
-9/-10	.0	.3	.0	.1	.0	.0	4	.0	.4
-11/-13	.1	.0	.0	.0	.0	.0	1	.0	.1
TOTAL							754		
PCT	.1	3.5	26.0	61.4	7.9	.8	100.0	.2	99.8

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	2.9	.0	.0	.0	.0	2.9	8.3	.0	.0	.0	.0	.0	8.3
1-2	.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	1.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.9	.0	.0	.0	.0	2.9	9.4	.0	.0	.0	.0	.0	9.4

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.5	.5	.0	.0	.0	.0	1.0	.0	5.2	.0	.0	.0	.0	5.2
1-2	.0	.4	.0	.0	.0	.0	.4	.0	10.3	.5	.0	.0	.0	10.8
3-4	.0	.0	.0	.0	.0	.0	.0	.0	5.8	9.3	.0	.0	.0	15.1
5-6	.0	.0	1.3	.0	.0	.0	1.3	.0	.0	6.5	.0	.0	.0	6.5
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.2	.0	.0	4.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.8	.0	.0	.0	2.8
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	.9	1.3	.0	.0	.0	2.6	.0	21.3	19.1	4.2	.0	.0	44.6

PERIOD: (OVER-ALL) 1963-1973

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AREA 0001 SOUTHEAST SUMATRA  
3.75 101.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOT PCT
<1	.0	.8	.0	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	5.5	.0	.0	.0	.0	6.5	.0	3.6	1.0	.0	.0	.0	4.6	.0
3-4	.0	1.3	2.1	.0	.0	.0	3.3	.0	.0	.1	.0	.0	.0	.1	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	8.5	2.1	.0	.0	.0	10.6	.0	3.6	1.2	.0	.0	.0	4.8	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOT PCT
<1	.4	.0	.0	.0	.0	.0	.4	.1	.8	.0	.0	.0	.0	.9	.0
1-2	.0	1.3	1.7	.0	.0	.0	3.0	.0	2.6	.5	.0	.0	.0	3.1	.0
3-4	.0	.0	.4	.0	.0	.0	.4	.0	.0	5.6	.0	.0	.0	5.6	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.5	.0	.0	.0	5.5	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	1.7	.0	.0	.0	.0	1.7	.0
8-9	.0	.0	.0	1.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	1.3	2.0	1.0	.0	.0	4.8	.1	5.1	11.5	.0	.0	.0	16.7	96.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	15.1	10.9	.0	.0	.0	.0	26.0	
1-2	1.0	23.2	3.7	.0	.0	.0	27.9	
3-4	.0	7.1	17.4	.0	.0	.0	24.5	
5-6	.0	.0	12.6	.0	.0	.0	12.6	
7	.0	1.7	.0	4.2	.0	.0	5.8	
8-9	.0	.0	2.1	1.0	.0	.0	3.1	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	16.1	42.9	35.8	5.2	.0	.0	100.0	65

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
46	.0	13.0	10.2	2.8	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	134	3
6-7	.0	4.6	18.4	8.3	8.5	1.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	180	4
8-9	.0	.0	4.7	7.3	4.8	1.6	.9	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	98	6
10-11	.0	.1	1.4	2.3	1.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25	5
12-13	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	6
>13	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	11
INDEX	3.6	1.9	1.9	2.1	.7	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	51	3
TOTAL	4.2	19.7	35.2	22.8	13.1	3.4	.9	.5	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	491	4
PCT	4.2	19.7	35.2	22.8	13.1	3.4	.9	.5	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1889-1973  
(OVER-ALL) 1854-1973

TABLE 20

AREA 0001 SOUTHEAST SUMATRA  
3.75 101.6E

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.2	.2	.2	.2	.1	.1	.1	.1	.1	.0	.0	36	.1
87/88	.5	1.1	1.6	1.7	1.8	.9	.7	.1	.5	.3	.0	.2	284	.8
85/86	5.9	9.5	18.2	22.3	25.2	17.8	8.6	3.7	3.8	4.3	3.9	4.5	3774	10.5
83/84	34.3	41.5	46.4	40.5	53.0	53.1	47.9	39.1	23.3	35.0	30.7	31.8	14848	41.5
81/82	48.4	39.5	29.7	22.0	18.3	24.3	35.8	46.0	47.9	45.4	52.0	50.7	13682	38.2
79/80	9.0	6.9	5.0	2.6	1.2	3.4	6.0	9.3	11.8	11.3	10.9	11.5	2639	7.4
77/78	1.8	1.2	.9	.6	.3	.4	.6	1.4	2.5	2.9	1.6	1.2	455	1.3
75/76	.2	.1	.0	.2	.1	.1	.1	.2	.1	.4	.5	.1	60	.2
73/74	.0	.0	.0	.0	.0	.0	.2	.0	.0	.4	.2	.0	32	.1
71/72	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	5	.0
69/70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
67/68	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
65/66	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
63/64	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
61/62	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
59/60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
57/58	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
55/56	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
53/54	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
51/52	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
49/50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	2949	2750	3122	2993	3091	3011	2979	2984	2735	3146	3001	2934	35613	100.0
MEAN	82.2	82.6	83.0	83.4	83.6	83.2	82.6	82.1	82.7	82.3	81.9	82.0	82.5	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

HR	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1010		1010	1008	1009	1010	1010	1008	1010	92
FEB	1010		1010	1007	1009	1007	1009	1010	1009	75
MAR	1011	1011	1010	1008	1010	1008	1011	1009	1010	106
APR	1009	1010	1009	1007	1009	1009	1010	1008	1009	106
MAY	1010		1009	1008	1010	1008	1011	1008	1010	74
JUN	1010	1011	1009	1008	1009	1010	1010	1009	1010	61
JUL	1010	1013	1010	1011	1010		1011	1010	1010	98
AUG	1011		1010	1010	1010	1009	1010	1009	1010	86
SEP	1011		1011	1010	1010		1011	1012	1011	104
OCT	1011	1013	1010	1009	1010	1010	1010	1011	1010	111
NOV	1010	1009	1010	1009	1010	1012	1010	1009	1010	137
DEC	1010		1009	1008	1009	1009	1010	1008	1009	105
ANN	1010	1011	1010	1009	1010	1009	1010	1009	1010	1153
OBS	276	7	294	85	189	35	174	93		

PERCENTILES

HR	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	1004	1004	1005	1008	1010	1011	1012	1013	1014
FEB	1007	1007	1007	1008	1009	1010	1012	1012	1013
MAR	1006	1006	1006	1008	1010	1011	1013	1013	1014
APR	1005	1005	1006	1008	1009	1010	1012	1013	1014
MAY	1005	1005	1007	1008	1010	1011	1013	1013	1014
JUN	1004	1006	1007	1008	1009	1011	1012	1014	1015
JUL	1007	1007	1008	1009	1010	1011	1012	1013	1013
AUG	1006	1006	1007	1009	1010	1012	1013	1013	1014
SEP	1006	1006	1008	1010	1011	1012	1014	1014	1015
OCT	1008	1005	1007	1009	1010	1011	1013	1013	1014
NOV	1008	1006	1007	1009	1010	1011	1013	1013	1014
DEC	1007	1005	1006	1009	1009	1011	1012	1013	1014

PERIOD: (PRIMARY) 1866-1972  
(OVER-ALL) 1859-1972

JANUARY

AREA 0002 CHRISTMAS ISLAND  
10.25 105.3E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WNO DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRFL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	16.7	12.5	.0	.0	.0	.0	70.8
NE	30.8	.0	30.8	.0	.0	.0	.0	61.5	38.5	.0	.0	.0	.0	.0	.0
E	21.6	8.1	.0	.0	.0	.0	.0	29.7	8.1	.0	.0	.0	.0	.0	62.2
SE	.0	3.5	2.9	.0	.0	.0	.0	6.6	.7	2.9	.0	.0	.0	.0	89.8
S	.0	.0	.0	.0	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	96.0
SW	.0	.0	.0	.0	.0	.0	.0	.0	2.8	2.8	.0	.0	.0	.0	94.3
W	.0	3.6	.0	.0	.0	.0	.0	2.6	3.6	.0	.0	.0	.0	.0	92.8
NW	.0	.0	10.5	.0	.0	.0	.0	10.5	10.5	1.3	.0	.0	.0	.0	77.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	1.6	1.6	2.2	.0	.0	.0	.0	5.5	4.9	1.0	.0	.0	.0	.0	87.9
TOT OBS:	182														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZLN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST BLWG	NO SIG WEA
0000	2.0	4.1	2.0	.0	.0	.0	.0	8.2	2.0	.0	.0	.0	.0	.0	.0	89.4
0600	3.4	1.7	1.7	.0	.0	.0	.0	6.8	6.8	.0	.0	.0	.0	.0	.0	80.4
1200	.0	.0	.0	.0	.0	.0	.0	.0	7.0	2.3	.0	.0	.0	.0	.0	90.7
1800	.0	.0	5.4	.0	.0	.0	.0	5.4	2.7	5.4	.0	.0	.0	.0	.0	86.5
TOT PLY TOT OBS:	1.3	1.6	2.1	.0	.0	.0	.0	5.3	4.6	1.0	.0	.0	.0	.0	.0	86.3

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	.2	1.6	.4	.2	.0	.0		2.3	9.0	.0	.0	2.0	4.1	4.1	.0	3.1	4.1
NE	.8	1.2	.0	.0	.0	.0		2.0	3.7	2.4	.0	1.4	.0	.5	.0	3.1	7.1
E	.7	1.4	.9	.0	.0	.0		3.1	7.4	3.6	.0	2.9	5.4	4.3	.0	3.1	.0
SE	2.3	7.5	5.3	.0	.0	.0		15.6	8.6	17.5	4.2	15.0	13.0	17.9	20.0	17.7	9.7
S	2.5	14.4	2.5	.0	.0	.0		20.5	7.3	28.9	41.7	17.1	25.0	18.2	39.0	25.1	11.7
SW	4.1	14.1	4.0	.2	.0	.0		22.5	7.4	21.7	12.5	25.2	19.0	20.1	.0	21.5	25.5
W	1.6	7.4	8.6	.8	.0	.0		16.4	10.3	19.0	25.0	19.1	21.6	13.5	30.0	6.2	15.3
NW	.5	6.1	9.4	.0	.0	.0		10.1	9.2	4.5	16.1	8.9	6.8	12.5	10.0	14.6	14.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	7.4							7.4	7.6	2.4	.0	8.5	5.4	8.7	.0	7.7	12.2
TOT OBS	109	270	117	6	0	0		502		83	6	165	37	92	5	65	49
TOT PCT	21.7	53.8	23.3	1.2	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	1.5	.5	.2	.0	.0		2.3	9.0	.0	2.4	3.9	2.3	
NE	2.0	.0	.0	.0	.0		2.0	2.7	2.2	1.1	.5	4.8	
E	1.6	1.5	.0	.0	.0		3.1	7.4	3.4	3.2	4.1	1.8	
SE	3.4	8.6	1.2	.0	.0		15.6	8.6	16.6	14.7	18.0	14.3	
S	6.2	10.3	1.0	.0	.0		20.5	7.3	29.0	18.3	19.1	18.2	
SW	11.7	9.7	1.1	.0	.0		22.5	7.4	21.1	24.1	19.3	23.2	
W	4.8	9.2	2.4	.0	.0		16.4	10.3	19.4	19.6	14.4	10.1	
NW	3.8	9.2	1.0	.0	.0		10.1	9.2	5.3	4.5	12.4	14.3	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	7.4						7.4	.0	2.2	7.9	8.2	9.6	
TOT OBS	240	228	28	0	0	502		7.6	89	202	97	114	
TOT PCT	47.8	45.0	7.2	.0	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1966-1972  
(OVER-ALL) 1855-1972

JANUARY

AREA 0002 CHRISTMAS ISLAND  
10.25 105.3E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000Z	2.2	10.1	56.2	30.3	1.1	.0	.0	8.8	100.0	89	
0600Z	7.9	15.3	51.0	24.8	1.0	.0	.0	7.5	100.0	202	
1201Z	8.2	15.5	58.8	14.4	3.1	.0	.0	7.1	100.0	97	
1802Z	9.6	14.9	52.6	22.8	.0	.0	.0	7.3	100.0	114	
TOT	37	72	270	117	6	0	0	7.6		502	
PCT	7.4	14.3	53.8	23.3	1.2	.0	.0	100.0			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10-50	TOTAL PCT	MEAN CLOUD COVER
N	.0	.0	2.0	1.4		6.5
NE	.0	.0	.7	1.5		7.0
E	2.7	.7	.5	1.2		3.5
SE	6.4	5.4	5.9	1.5		4.0
S	9.0	4.9	8.4	1.2		3.7
SW	3.2	4.2	9.8	2.4		5.0
W	.3	3.0	7.8	3.0		5.5
NW	.0	3.4	5.4	1.4		5.5
VAK	.0	.0	.0	.0		.0
CALM	1.4	.7	.0	.7		4.0
TOT OBS	34	33	60	21	148	
TOT PCT	23.0	22.3	40.5	14.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM) >4/8  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NM <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3999	4999	6499	7999			
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4	
.0	.0	.0	.7	.8	.0	.0	.0	.0	.0	.7	
.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	4.1	
.0	.0	.0	1.5	2.2	.0	.0	.0	.0	.0	15.5	
.0	.0	.0	1.0	.7	1.0	.0	.0	.0	.0	20.8	
.0	.0	.7	.8	2.0	1.2	.0	.0	.0	.0	7.8	
.0	.0	.0	.0	2.0	2.2	.0	.0	.0	.0	10.0	
.0	.0	.0	.0	.7	1.7	.0	.0	.0	.0	7.8	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.7	
.0	.0	.0	.6	14	9	.0	.0	.0	.0	118	148
.0	.0	.0	4.1	9.5	6.1	.0	.0	.0	.7	79.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)								
	• CP ≥10	• OR ≥5	• OR ≥2	• OR ≥1	• OR ≥1/2	• OR ≥1/4	• OR ≥500	• OR ≥0	
• NR ≥6500	.7	.7	.7	.7	.7	.7	.7	.7	
• NR ≥5000	.7	.7	.7	.7	.7	.7	.7	.7	
• CP ≥3500	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	
• CP ≥2000	5.9	7.2	7.2	7.2	7.2	7.2	7.2	7.2	
• OR ≥1000	9.0	15.7	17.0	17.0	17.0	17.0	17.0	17.0	
• OR ≥600	11.8	19.6	20.9	20.9	20.9	20.9	20.9	20.9	
• NR ≥300	11.8	19.6	20.9	20.9	20.9	20.9	20.9	20.9	
• OR ≥150	11.8	19.6	20.9	20.9	20.9	20.9	20.9	20.9	
• OR ≥0	11.8	19.6	20.9	20.9	20.9	20.9	20.9	20.9	
TOTAL	18	30	32	32	32	32	32	32	

TOTAL NUMBER OF OBS: 133

PCT FREQ NM <5/8: 79.1

TABLE 7a

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
2.0	11.7	22.4	21.6	19.0	7.4	4.9	3.1	7.4	.0	102

PERIOD: (PRIMARY) 1866-1972  
(OVER-ALL) 1859-1972

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2 ND PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1 ND PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2 ND PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
PCP	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.5	
2<5 ND PCP	.0	.7	.4	.1	1.5	.0	.0	.0	.0	.0	2.7	
TOT %	.0	.7	.4	.7	1.5	.0	.0	.0	.0	.0	3.3	
PCP	.0	1.1	.5	.5	.0	.0	.5	1.1	.0	.0	3.8	
5<10 ND PCP	.5	.0	.0	2.5	2.9	1.1	1.9	1.4	.0	.0	10.4	
TOT %	.5	1.1	.5	3.2	2.9	1.1	2.5	2.5	.0	.0	14.3	
PCP	.0	.0	1.0	.1	.0	.0	.0	.0	.0	.0	1.1	
10+ ND PCP	2.7	.0	3.2	14.8	19.4	18.3	12.8	8.0	.0	2.2	81.3	
TOT %	2.7	.0	4.1	15.3	19.4	18.3	12.8	8.0	.0	2.2	82.4	
TOT OBS												182
TOT PCT	3.3	1.8	5.1	18.8	23.8	17.4	15.2	10.4	.0	2.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2 4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1 4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2 4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
0-3	.0	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	1.0	
2<5 4-10	.0	.0	.0	.6	1.4	.0	.0	.0	.0	.0	.0	2.0	
11-21	.0	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.5	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.6	.4	.6	1.4	.0	.2	.2	.0	.0	.0	3.4	
0-3	.0	.0	.0	.0	.5	.5	.5	.0	.0	.0	.0	1.5	
5<10 4-10	.0	1.0	.0	1.8	2.6	.0	.2	1.2	.0	.0	.0	6.9	
11-21	.5	.0	.5	1.0	.0	1.0	1.5	1.0	.0	.0	.0	5.4	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.5	1.0	.5	2.8	3.1	1.5	2.2	2.2	.0	.0	.0	13.8	
0-3	.0	1.0	.5	.2	1.6	.9	.7	.0	.0	3.4	.0	8.4	
10+ 4-10	1.4	.5	2.3	9.6	16.4	13.7	6.5	5.3	.0	.0	.0	55.7	
11-21	.6	.0	.9	3.8	1.4	3.6	5.4	2.1	.0	.0	.0	17.7	
22+	.5	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	1.0	
TOT %	2.5	1.5	3.7	13.7	19.3	18.1	13.2	7.4	.0	3.4	.0	82.8	
TOT OBS													203
TOT PCT	3.0	3.1	4.6	17.1	23.8	19.6	15.6	9.9	.0	3.4	100.0		

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PERIOD: (PRIMARY) 1856-1972  
(OVER-ALL) 1855-1972

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3999	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY MGT	TOTAL OBS
00003	.0	.0	.0	9.8	2.4	7.3	2.4	.0	.0	2.4	24.4	75.6	41
06009	.0	.0	.0	2.0	16.3	5.2	.0	.0	.0	.0	26.5	73.5	49
12015	.0	.0	.0	2.6	5.3	2.6	.0	.0	.0	.0	10.5	89.5	38
18021	.0	.0	.0	.0	13.8	3.4	.0	.0	.0	.0	17.2	82.8	29
TOT	0	0	0	6	15	9	1	0	0	1	72	125	157
PCT	.0	.0	.0	3.8	9.6	5.7	.6	.0	.0	.6	27.4	79.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	1.9	17.0	81.1	43
06009	.0	.0	.0	3.1	9.4	87.5	64
12015	.0	.0	.0	.0	13.0	87.0	46
18021	.0	.0	.0	8.7	23.9	67.4	46
TOT	0	0	0	7	32	170	209
PCT	.0	.0	.0	3.3	15.3	81.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8), BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ 4NM5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	12.2	14.6	73.2	41
06009	.0	.0	4.2	22.9	72.9	48
12015	.0	.0	2.6	8.3	88.9	36
18021	.0	.0	7.1	14.3	78.0	28
TOT	0	0	10	24	119	153
PCT	.0	.0	6.5	15.7	77.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-29	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	3.4	8.3	.0	.0	16	12.1
80/84	.0	.0	.0	.0	11.4	39.4	28.8	2.3	108	81.8
75/79	.0	.0	.0	.0	.0	1.9	3.0	1.5	8	6.1
TOTAL	0	0	0	0	20	65	42	5	132	100.0
PCT	.0	.0	.0	.0	15.7	49.2	31.8	3.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	1.5	1.5	.8	4.2	2.7	1.5	.0	.0
80/84	3.0	.8	4.2	15.0	18.6	16.5	13.3	7.6	.0	2.3
75/79	.0	.8	.0	.9	1.1	1.7	.0	.8	.0	.8
TOTAL	3.8	1.5	5.7	17.4	20.5	22.3	15.9	9.8	.0	3.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	95	93	86	82	78	76	75	81.9	90
06009	91	90	88	83	79	77	69	83.5	199
12015	88	86	85	82	79	79	79	82.0	96
18021	88	87	86	81	78	76	76	81.1	112
TOT	95	90	87	82	79	77	69	82.4	497

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	20.0	37.1	40.0	2.9	78	35
06009	.0	.0	17.8	55.6	24.4	2.2	75	45
12015	.0	.0	12.5	50.0	34.4	3.1	78	32
18021	.0	.0	4.3	56.5	30.4	8.7	80	23
TOT	0	0	20	67	43	5	77	135

PERIOD: (PRIMARY) 1866-1972  
(OVER-ALL) 1954-1972

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TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THF OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	TOT	N FOG	WD FOG
5	.0	.0	.0	.6	1	.0	.6
4	.0	.0	1.9	.6	4	.0	2.5
3	.0	.0	.0	1.2	2	.0	1.2
2	.0	.0	3.1	1.9	8	.0	5.0
1	.0	.0	9.9	1.9	19	.0	11.2
0	.0	.6	9.3	.4	17	.0	10.6
-1	.0	3.7	26.7	.0	49	.0	30.4
-2	.0	5.6	9.3	.0	24	.0	14.9
-3	.0	3.7	7.5	.0	18	.0	11.2
-4	.0	4.3	5.0	.0	13	.0	9.3
-5	.0	.0	.6	.0	1	.0	.6
-6	.6	.6	.0	.0	2	.0	1.2
-7/-8	.0	.0	.6	.0	1	.0	.6
TOTAL	1	30	119	11	161	0	161
PCT	.6	18.6	73.9	8.8	100.0		100.0

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHT'S (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	1.3
1-2	.0	1.5	.0	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.8	.0	.0	.0	.0	.8	.0	1.0	.0	.0	.0	.0	1.0
5-6	.0	.0	.8	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.3	.0	.0	.0	.0	3.0	1.3	1.0	.0	.0	.0	.0	2.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	1.0	.0	.0	.0	.0	1.8	.0	1.5	.0	.0	.0	.0	1.5
1-2	.0	1.0	.0	.0	.0	.0	1.0	.0	12.5	1.0	.0	.0	.0	13.5
3-4	.0	1.0	.8	.0	.0	.0	1.8	.0	2.5	2.3	.0	.0	.0	2.8
5-6	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	1.0
7	.0	.0	2.0	.0	.0	.0	2.0	.0	.0	1.0	.0	.0	.0	1.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	3.8	2.8	.0	.0	.0	7.3	.0	14.3	3.3	.0	.0	.0	17.6



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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S							SW							
MGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	6.0	.0	.0	.0	.0	6.8	.3	2.5	.0	.0	.0	.0	2.8
1-2	.0	11.0	.0	.0	.0	.0	11.0	1.0	13.8	1.3	.0	.0	.0	16.0
3-4	.0	5.0	1.8	.0	.0	.0	6.8	.0	3.0	1.3	.0	.0	.0	4.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	2.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	22.0	1.8	.0	.0	.0	24.3	1.3	19.3	4.3	.0	.0	.0	25.0

M							4M							TOTAL	
MG	1-3	4-10	11-21	22-33	34-47	48-	PCT	1-3	4-10	11-21	22-33	34-47	48-	PCT	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	1.0	2.3	2.8	.0	.0	.0	6.3	.0	1.8	1.0	.0	.0	.0	2.8	.0
3-4	.0	1.5	1.0	.0	.0	.0	2.3	.0	2.3	.0	.0	.0	.0	2.3	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	.0	.0	.0	1.3	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	4.3	3.8	.0	.0	.0	9.0	.0	4.0	2.3	.0	.0	.0	6.3	97.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-9	10-10	11-21	22-33	34-47	48+	PCT	TOT CBS
<1	6.0	11.0	.0	.0	.0	.0	17.0	
1-2	2.0	45.0	6.0	.0	.0	.0	53.0	
3-4	.0	15.0	7.0	.0	.0	.0	22.0	
5-6	.0	.0	5.0	.0	.0	.0	5.0	
7	.0	.0	3.0	.0	.0	.0	3.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-14	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-84	.0	.0	.0	.0	.0	.0	.0	
85+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.0	71.0	21.0	.0	.0	.0	100.0	100

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

[illegible]

PERIOD: (PRIMARY) 1865-1969  
(COVER-ALL) 1856-1969

FEBRUARY

SEA 0002 CHRISTMAS ISLAND  
10.15 105.3E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIR

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	5.7	11.4	.0	.0	.0	.0	.0	17.1	.0	.0	.0	.0	.0	.0
SE	2.6	5.3	.0	.0	.0	.0	.0	7.9	5.3	.0	10.5	.0	.0	.0
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.1	.0	.0	.0	.0
SW	.0	.0	.0	.0	.0	.0	.0	.0	9.9	.0	.0	.0	.0	.0
W	.0	4.9	.0	.0	.0	.0	.0	4.9	.0	.0	.0	.0	.0	.0
NW	3.7	3.7	.0	.0	.0	.0	.0	7.5	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.7	3.3	.0	.0	.0	.0	.0	5.0	3.3	1.7	1.7	.0	.0	.0
TOT OBS:	121													88.4

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW
00003	.0	2.6	.0	.0	.0	.0	.0	2.6	5.1	2.6	2.6	.0	.0	.0
06009	2.2	4.4	.0	.0	.0	.0	.0	6.7	2.2	.0	2.2	.0	.0	.0
12015	.0	.0	.0	.0	.0	.0	.0	.0	3.8	.0	.0	.0	.0	.0
18021	6.7	6.7	.0	.0	.0	.0	.0	13.3	.0	13.3	.0	.0	.0	.0
TOT PCT	1.6	3.2	.0	.0	.0	.0	.0	4.8	3.2	2.4	1.6	.0	.0	.0
TOT OBS:	125													88.0

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18
N	1.2	2.5	1.5	.0	.2	.0		5.4	9.1	6.0	.0	4.7	2.2	6.0	.0	10.8	1.8
NE	.3	1.4	.3	.0	.0	.0		2.0	6.6	2.6	.0	2.1	2.2	1.0	.0	1.4	3.6
E	1.2	2.8	.2	.0	.0	.0		4.2	6.0	1.3	.0	5.5	8.7	8.5	.0	.0	.0
SE	1.5	8.0	2.9	.0	.0	.0		12.4	8.4	15.1	.0	12.8	15.2	17.5	.0	6.1	12.5
S	1.5	8.1	3.6	.0	.0	.0		13.1	8.6	14.7	50.0	11.5	23.9	14.0	.0	10.1	7.1
SW	2.9	11.9	4.1	.0	.0	.0		18.9	8.0	22.0	50.0	12.5	21.7	20.5	100.0	16.9	26.8
W	1.5	8.7	3.8	.8	.0	.0		14.9	10.4	14.2	.0	14.1	6.7	17.0	.0	20.9	14.3
NW	2.4	8.8	9.4	1.5	.2	.0		22.3	11.4	17.2	.0	29.7	17.4	16.5	.0	25.7	19.6
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.8							6.8	.0	6.8	.0	7.3	.0	4.0	.0	8.1	14.3
TOT OBS	57	154	76	7	1	0	295		8.6	58	2	96	23	50	1	37	28
TOT PCT	19.3	52.2	25.8	2.4	.3	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	03	09	18
N	2.9	1.7	.7	.0	.2		5.4	9.1	5.8	4.2	5.9
NE	1.4	.7	.0	.0	.0		2.0	6.6	2.5	2.1	1.0
E	2.4	1.8	.0	.0	.0		4.2	6.0	1.3	6.1	8.5
SE	4.4	6.9	1.0	.0	.0		12.4	8.4	14.6	13.2	12.3
S	4.1	8.6	.5	.0	.0		13.1	8.6	15.8	13.9	13.7
SW	7.2	10.9	.8	.0	.0		18.9	8.0	22.9	14.3	22.1
W	3.5	8.7	2.5	.2	.0		14.9	10.4	13.8	13.0	16.7
NW	5.4	12.5	4.0	.2	.2		22.3	11.4	16.7	27.3	16.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0
CALM	6.8						6.8	.0	6.7	5.9	3.9
TOT OBS	112	153	28	1	1	295		8.6	60	119	51
TOT PCT	38.0	51.9	9.5	.3	.3		100.0		100.0	100.0	100.0

## FEBRUARY

PERIOD: (PRIMARY) 1865-1969  
(OVER-ALL) 1856-1969AREA 0002 CHRISTMAS ISLAND  
10.15 105.3E

TABLE 4

## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	6.7	11.7	56.7	25.0	.0	.0	.0	.0	8.4	100.0	60
06009	5.9	11.8	55.8	25.2	2.5	.0	.0	.0	8.8	100.0	119
12015	3.9	19.7	37.9	25.5	3.9	.0	.0	.0	8.5	100.0	51
18021	10.8	12.3	44.6	29.2	3.1	.0	.0	.0	8.6	100.0	65
TOT	20	37	154	76	7	1	0	0	8.6		295
PCT	6.8	12.5	52.2	25.8	2.4	.3	.0		100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	2.1	.0		6.5
NE	.0	.0	1.0	1.0		6.5
E	2.9	1.0	1.8	1.0		4.4
SE	1.6	4.2	5.7	.0		4.5
S	4.9	4.2	3.9	1.0		3.7
SW	1.8	1.3	10.9	.0		5.2
W	3.1	2.9	9.1	3.1		4.2
NW	1.3	5.2	9.1	9.4		6.2
VAR	.0	.0	.0	.0		.0
CALM	1.0	1.0	4.2	.0		4.8
TOT OBS	16	19	46	19	96	5.1
TOT PCT	16.7	19.8	47.9	19.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1
.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	1.0
.0	.0	.0	.0	1.8	1.0	.0	.0	.0	.0	.0	3.9
.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	10.2
.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	13.0
.0	.0	1.0	1.0	1.3	.0	.0	.0	.0	.0	.0	10.7
.0	.0	.0	.0	3.9	1.0	.0	.0	.0	.0	.0	12.5
.0	.0	.0	2.3	6.3	5.2	.0	1.0	.0	.0	.0	10.2
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.3
0	9	1	4	15	7	1	1	0	0	0	67
.0	.0	1.0	4.2	15.6	7.3	1.0	1.0	.0	.0	69.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.0	.0	.0	.0	.0	.0	.0	.0
>3000	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
>3500	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
>2000	7.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
>1000	18.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2
>600	20.2	28.3	28.3	28.3	28.3	28.3	28.3	28.3
>300	21.2	29.3	29.3	29.3	29.3	29.3	29.3	29.3
>150	21.2	29.3	29.3	29.3	29.3	29.3	29.3	29.3
>0	21.2	29.3	29.3	29.3	29.3	29.3	29.3	29.3
TOTAL	21	29	29	29	29	29	29	29

TOTAL NUMBER OF OBS: 99

PCT FREQ NH &lt;5/8: 70.7

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
.0	14.2	19.8	18.9	17.9	10.4	5.6	4.7	7.5	.0	106

PERIOD: (PRIMARY) 1805-1969  
(OVER-ALL) 1805-1969

FEBRUARY

AREA 0002 CHRISTMAS ISLAND  
10.15 109.3E

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO PCP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1/2<1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO PCP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1<2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO PCP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2<5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO PCP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5<10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO PCP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO PCP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT OBS	2.1	1.7	7.2	15.7	12.6	16.7	16.9	22.1	0.0	5.0	100.0	121
TOT PCT	2.1	1.7	7.2	15.7	12.6	16.7	16.9	22.1	0.0	5.0	100.0	121

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO PCP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1/2<1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO PCP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1<2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO PCP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2<5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO PCP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5<10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO PCP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO PCP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT OBS	2.8	1.5	6.4	15.1	12.7	17.5	13.8	22.8	0.0	5.9	100.0	136
TOT PCT	2.8	1.5	6.4	15.1	12.7	17.5	13.8	22.8	0.0	5.9	100.0	136

PERIOD: (PRIMARY) 1955-1969  
(OVER-ALL) 1955-1969

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AREA 0002 CHRISTMAS ISLAND  
10.15 105.3E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH  $\geq$  4/8) AND  
OCCURRENCE OF NH  $\leq$  5/8 BY HOUR

HOUR (GMT)	000 14"	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH $\leq$ 5/8 ANY HGT	TOTAL OBS
00003	.0	.0	2.0	3.0	18.2	3.0	.0	.0	.0	.0	27.3	72.7	33
06009	.0	.0	.0	5.3	15.8	10.5	2.6	.0	.0	.0	34.2	65.8	38
12015	.0	.0	.0	4.5	13.6	9.1	.0	.0	.0	.0	27.3	72.7	22
18021	.0	.0	.0	.0	.0	.0	.0	9.1	.0	.0	9.1	90.9	11
TOT	0	0	1	4	15	7	1	1	0	0	29	75	104
PCT	.0	.0	1.0	3.8	14.4	6.7	1.0	1.0	.0	.0	27.9	72.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	.0	9.3	90.7	43
06009	.0	.0	.0	4.3	12.8	83.0	47
12015	.0	.0	.0	.0	10.7	89.3	28
18021	.0	.0	.0	.0	.0	100.0	22
TOT	0	0	0	2	13	125	140
PCT	.0	.0	.0	1.4	9.3	89.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET) NH  $\geq$  4/8) BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <5	1000+ AND 5+	NH $\leq$ 5/8 AND 5+	TOTAL OBS
00003	.0	3.1	6.3	21.9	71.9	32
06009	.0	.0	5.6	30.6	63.9	36
12015	.0	.0	4.8	23.8	71.4	21
18021	.0	.0	.0	10.0	90.0	10
TOT	0	1	5	24	70	99
PCT	.0	1.0	5.1	24.2	70.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	1.0	.0	1.0	.0	2	2.1
85/89	.0	.0	.0	.0	7.3	4.2	1.0	.0	12	12.5
80/84	.0	.0	.0	.0	5.2	32.3	29.2	8.3	72	75.0
75/79	.0	.0	.0	.0	.0	3.1	4.2	3.1	10	10.4
TOTAL	0	0	0	0	13	38	34	11	95	100.0
PCT	.0	.0	.0	.0	13.5	39.6	35.4	11.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90	.0	.0	.0	1.0	.0	.0	.0	1.0	.0	.0
85	.0	.0	2.1	2.1	1.0	2.1	1.0	2.1	.0	2.1
80	2.1	1.0	5.5	9.6	6.8	13.5	16.4	15.9	.0	4.2
75	.0	.0	.0	1.0	2.1	1.0	2.1	4.2	.0	.0
TOTAL	2.1	1.0	7.6	13.8	9.9	16.7	19.5	23.2	.0	6.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	89	87	82	79	78	78	82.2	60
06009	94	91	89	83	79	75	75	83.6	117
12015	89	88	85	82	80	76	76	82.2	50
18021	87	86	85	81	79	78	78	81.3	64
TOT	94	90	88	82	79	77	75	82.6	291

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	3.1	40.6	50.0	6.3	80	32		
06009	.0	.0	27.8	38.9	13.9	19.4	78	36		
12015	.0	.0	4.8	57.1	28.6	9.5	78	21		
18021	.0	.0	9.1	18.2	72.7	.0	82	11		
TOT	0	0	13	41	35	11	79	100		

PERIOD: (PRIMARY) 1965-1969  
(OVER-ALL) 1956-1969

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AREA 0002 CHRISTMAS ISLAND  
10.14 105.3F

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FDG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FDG	NO FDG
5	.0	.0	.0	.0	.9	1	.0	.9
4	.0	.0	.0	1.8	3.5	6	.0	5.3
3	.0	.0	.0	.9	.0	1	.0	.9
2	.0	.0	2.8	2.8	.9	7	.0	6.1
1	.0	1.8	7.0	2.8	.0	13	.0	11.4
0	.0	1.8	16.7	3.5	.0	25	.9	21.1
-1	.0	.9	20.2	.0	.0	24	.9	20.2
-2	.0	.9	8.1	.0	.0	8	.0	7.0
-3	.0	.9	7.0	.0	.0	9	.0	7.9
-4	.0	4.4	6.1	.0	.0	12	.0	10.5
-5	.0	3.5	.9	.0	.0	5	.0	4.4
-6	.9	.9	.0	.0	.0	2	.0	1.8
-7/-8	.0	.9	.0	.0	.0	1	.0	.9
TOTAL	1		76		6	114	2	112
PCT	.9	13.8	66.7	11.4	5.3	100.0	1.8	98.2

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	1.8	.0	.0	.0	.0	.0	1.8	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	1.8	.0	.0	.0	.0	1.8
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.8	.0	.0	.0	.0	.0	1.8	.0	1.8	.0	.0	.0	.0	1.8

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	1.8	3.2	.0	.0	.0	.0	5.0	.0	.0	.0	.0	.0	.0	.3
1-2	.0	1.8	.0	.0	.0	.0	1.8	.0	2.8	1.8	.0	.0	.0	4.1
3-4	.0	1.8	.0	.0	.0	.0	1.8	.0	1.8	.0	.0	.0	.0	1.8
5-6	.0	1.8	.0	.0	.0	.0	1.8	.0	3.6	.0	.0	.0	.0	3.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	1.8	.0	.0	.0	.0	1.8
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.8	8.6	.0	.0	.0	.0	10.5	.0	10.0	1.8	.0	.0	.0	11.8

PERIOD: (OVER-ALL) 1963-1969

FEBRUARY  
TABLE 18 (CONT)AREA 0002 CHRISTMAS ISLAND  
10.15 105.3E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	1.8	.0	.0	.0	.0	.0	1.8	
1-2	.0	5.0	.0	.0	.0	.0	5.0	.0	15.5	1.8	.0	.0	.0	17.3	
3-4	.0	7.3	5.5	.0	.0	.0	12.7	.0	1.8	3.6	.0	.0	.0	5.5	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	3.6	.0	.0	.0	3.6	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	12.3	9.1	.0	.0	.0	21.4	1.8	17.3	5.5	.0	.0	.0	24.5	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	1.8	.0	.0	.0	.0	.0	1.8	
1-2	.0	5.5	.0	.0	.0	.0	5.5	.0	2.7	1.8	.0	.0	.0	4.5	
3-4	.0	1.8	.0	.0	.0	.0	1.8	.0	.0	.0	.0	.0	.0	1.8	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.6	.0	.0	.0	3.6	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.6	.0	.0	.0	3.6	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	7.3	.0	.0	.0	.0	7.3	1.8	4.5	9.1	.0	.0	.0	15.5	94.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	12.7	3.6	.0	.0	.0	.0	16.4	
1-2	.0	32.7	5.5	.0	.0	.0	38.2	
3-4	.0	16.4	9.1	.0	.0	.0	25.5	
5-6	.0	5.5	3.6	.0	.0	.0	9.1	
7	.0	1.8	7.3	.0	.0	.0	9.1	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	1.8	.0	.0	.0	.0	1.8	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	12.7	61.8	25.5	.0	.0	.0	100.0	55

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.1	11.2	7.9	2.2	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21
6-7	.0	.0	13.5	12.4	10.1	3.4	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	36
8-9	.0	1.1	4.5	2.2	12.4	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20
10-11	.0	.0	1.1	.0	.0	2.2	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4
12-13	.0	.0	.0	1.1	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
INDEX	3.4	.0	.0	.0	2.2	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	89
TOTAL	4	11	24	16	22	8	3	0	0	1.1	0	0	0	0	0	0	0	0	0	0	5
PCT	4.5	12.4	27.0	18.0	24.7	9.0	3.4	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1862-1969  
(OVER-ALL) 1855-1949

NAPCM

AREA 0002 CHRISTMAS ISLAND  
10.05 104.9E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHMR	DRZL	FRZG PCPN	SNOW	OTHER PRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	13.3	.0	.0	.0	.0	.0	13.3	13.3	.0	.0	.0	.0	.0	73.3
NE	40.0	.0	.0	.0	.0	.0	.0	40.0	.0	.0	.0	.0	.0	.0	60.0
E	.0	3.2	4.3	.0	.0	.0	.0	7.5	.0	.0	.0	.0	.0	.0	89.2
SE	.0	.6	2.2	.0	.0	.0	.0	2.8	6.7	2.8	.0	.0	.0	.0	87.8
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SW	8.5	.0	.0	.0	.0	.0	.0	8.5	8.5	.0	.0	.0	.0	.0	83.0
W	.0	7.1	.0	.0	.0	.0	.0	7.1	5.4	.0	.0	.0	.0	.0	87.5
NW	.0	17.4	.0	.0	.0	.0	.0	17.4	1.4	.0	.0	.0	.0	.0	81.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	20.0	.0	.0	.0	.0	.0	20.0	.0	.0	.0	.0	.0	.0	80.0
TOT PCT	1.4	5.1	1.4	.0	.0	.0	.0	8.0	4.3	1.4	.0	.0	.0	.0	86.2
TOT OBS:	138														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHMR	DRZL	FRZG PCPN	SNOW	OTHER PRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
0000	3.1	.0	3.1	.0	.0	.0	.0	6.3	3.1	.0	.0	.0	.0	.0	90.6
0600	.0	5.3	.0	.0	.0	.0	.0	5.3	7.9	2.8	.0	.0	.0	.0	84.2
1200	2.6	5.3	7.8	.0	.0	.0	.0	10.5	.0	2.8	.0	.0	.0	.0	88.8
1800	.0	8.6	.0	.0	.0	.0	.0	8.6	5.7	.0	.0	.0	.0	.0	85.7
TOT PCT	1.4	4.9	1.4	.0	.0	.0	.0	7.7	4.2	1.4	.0	.0	.0	.0	86.7
TOT OBS:	143														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	1.4	3.0	1.5	.2	.0	.0	6.0	8.5	5.7	.0	7.9	7.8	5.8	.0	3.3	4.4		
NE	.2	3.7	.9	.0	.0	.0	4.8	8.6	4.7	.0	5.4	2.3	3.1	8.3	3.1	9.5		
E	1.5	9.7	8.4	.9	.0	.0	20.5	10.5	19.5	.0	23.5	19.1	13.3	25.0	23.6	22.2		
SE	1.1	11.2	5.4	.7	.0	.0	18.4	9.9	22.7	.0	17.7	16.0	16.8	66.7	16.7	19.6		
S	1.7	7.1	2.0	.0	.0	.0	10.9	7.9	9.6	.0	8.8	14.1	15.7	.0	8.3	10.8		
SW	2.1	4.1	.8	.0	.0	.0	8.9	5.8	5.5	.0	5.6	7.8	8.6	.0	6.7	8.9		
W	1.2	5.7	5.3	.3	.0	.0	12.6	10.3	10.7	.0	9.9	12.5	16.4	.0	17.2	11.4		
NW	1.9	6.4	5.4	1.0	.5	.0	15.1	11.3	14.3	.0	14.7	17.2	37.7	.0	18.9	8.2		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	4.8						4.8	.0	7.3	.0	6.5	3.1	2.7	.0	2.2	5.1		
TOT OBS	99	320	184	21	3	0	629		9.2	96	0	184	86	113	3	90	79	
TOT PCT	15.7	50.9	29.6	3.3	.5	.0		100.0		100.0	0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	2.9	2.3	.8	.1	.0		6.0	8.5	5.7	7.9	5.0	3.8		
NE	1.7	2.7	.4	.0	.0		4.8	8.6	4.7	4.6	3.2	8.1		
E	6.4	10.5	3.6	.0	.0		20.5	10.5	19.5	22.4	13.6	22.9		
SE	6.0	9.5	2.9	.0	.0		18.4	9.9	22.7	17.2	18.1	18.0		
S	4.8	5.0	1.0	.0	.0		10.9	7.9	9.6	10.2	15.3	9.5		
SW	4.6	2.2	.1	.0	.0		6.9	5.8	5.5	6.1	8.4	7.7		
W	3.9	6.7	2.0	.0	.0		12.6	10.3	10.7	10.6	15.9	14.5		
NW	4.8	7.3	2.5	.2	.3		15.1	11.3	14.3	13.3	17.2	13.9		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	4.8						4.8	.0	7.3	5.6	2.6	3.6		
TOT OBS	251	240	84	2	2	629		9.2	96	248	116	169		
TOT PCT	37.9	46.1	13.4	.3	.3		100.0		100.0	100.0	100.0	100.0		



PERIOD: (PRIMARY) 1862-1969  
(OVER-ALL) 1893-1969

MARCH

AREA 0002 CHRISTMAS ISLAND  
10.05 104.9E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	7.3	8.2	57.3	24.0	2.1	1.0	.0	8.9	100.0	96
06009	5.6	10.9	48.0	31.0	3.6	.8	.0	9.5	100.0	248
12015	2.6	12.1	49.1	32.8	3.4	.0	.0	9.4	100.0	116
18021	3.6	11.8	52.7	28.4	3.6	.0	.0	8.7	100.0	169
TOT	30	49	320	186	21	3	0	9.2		629
PCT	4.8	11.0	50.9	29.6	3.3	.5	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	10-14	MEAN CLOUD COVER
N	.0	.9	2.4	1.7		6.3
NE	.9	.4	.0	.9		4.4
E	5.0	5.8	6.9	1.5		4.3
SE	2.2	11.6	12.3	4.5		5.2
S	2.2	6.0	.6	.0		3.3
SW	1.9	2.8	3.7	.0		4.2
W	.9	.0	8.0	2.6		6.2
NW	1.7	1.7	4.1	2.6		5.4
VAR	.0	.0	.0	.0		.0
CALM	1.7	.9	.0	1.7		4.2
TOT OBS	19	35	44	18	116	4.9
TOT PCT	16.4	30.2	37.9	15.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT. MH >4/8)  
AND OCCURRENCE OF MH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	MH <5/8 ANY HGT	TOTAL
149	299	599	999	1999	3499	4999	6499	7999			OBS
.0	.0	.0	.0	1.5	1.7	.0	.0	.0	.0	1.7	
.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	1.3	
.0	.0	.0	.9	3.2	.9	.0	.0	.0	.0	14.2	
.0	.0	.0	1.7	2.8	5.2	.0	.0	.0	.0	20.9	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.8	
.0	.0	.0	.0	.9	.2	.0	.0	.0	.0	7.3	
.0	.0	.0	2.6	1.7	1.5	.0	.0	.0	.0	5.6	
.0	.0	.0	.9	1.9	.9	.0	.9	.0	.0	5.6	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.9	.9	.0	.0	.0	.0	.0	2.6	
.0	.0	.0	.9	1.5	1.2	.0	1	.0	.0	7.9	116
.0	.0	.0	7.8	12.9	10.3	.0	.9	.0	.0	68.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (MH >4/8) AND VISBY (MH)

CEILING (FEET)	OR >10	OR >5	OR >2	VSBY (MH) OR >1	OR >1/2	OR >1/4	OR >5000	OR >0
OR >6500	.0	.0	.0	.0	.0	.0	.0	.0
OR >5000	.8	.8	.8	.8	.8	.8	.8	.8
OR >3500	.8	.8	.8	.8	.8	.8	.8	.8
OR >2000	9.1	19.7	10.7	10.7	10.7	10.7	10.7	10.7
OR >1000	19.0	23.1	24.0	24.0	24.0	24.0	24.0	24.0
OR >600	24.8	30.6	31.4	31.4	31.4	31.4	31.4	31.4
OR >300	24.8	30.6	31.4	31.4	31.4	31.4	31.4	31.4
OR >150	24.8	30.6	31.4	31.4	31.4	31.4	31.4	31.4
OR >0	24.8	30.6	31.4	31.4	31.4	31.4	31.4	31.4
TOTAL	30	37	38	38	38	38	38	38

TOTAL NUMBER OF OBS: 121

PCT FREQ MH <5/8: 68.6

TABLE 7a

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL
2.4	9.7	16.1	26.6	13.7	4.8	13.7	6.5	6.5	.0	124

PERIOD: (PRIMARY) 1962-1969  
(OVER-ALL) 1955-1969

MARCH

AREA 0002 CHRISTMAS ISLAND  
10.05 106.9E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (MM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.7
	NO PCP	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.7	.7
	TOT %	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.7	1.5
5<10	PCP	.7	.0	.0	.7	.0	.0	.7	2.2	.0	.0	4.4	4.4
	NO PCP	1.5	.0	.0	4.4	.7	.7	1.5	1.5	.0	.0	10.2	10.2
	TOT %	2.2	.0	.0	5.1	.7	.7	2.2	3.6	.0	.0	14.6	14.6
10+	PCP	.0	.7	1.3	.2	.0	.0	.0	.0	.0	.0	2.2	2.2
	NO PCP	3.3	1.1	15.0	27.6	7.8	7.1	8.0	8.9	.0	2.9	81.6	81.6
	TOT %	3.3	1.8	16.2	27.7	7.8	7.1	8.0	8.9	.0	2.9	83.9	83.9
TOT OBS		137											
TOT PCT		4.9	1.8	17.0	32.8	8.6	7.8	10.2	12.6	.0	3.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (MM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.6
	4-10	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.6	.6
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.6	1.2
5<10	0-3	.0	.0	.0	.0	.0	.6	.0	.6	.0	.0	1.2	1.2
	4-10	1.2	.0	.0	3.6	.6	.6	.6	.6	.0	.0	7.1	7.1
	11-21	.6	.0	.0	.6	.0	.0	1.2	1.2	.0	.0	3.6	3.6
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	1.8	.0	.0	4.2	.6	1.2	1.8	3.0	.0	.0	12.5	12.5
10+	0-3	.6	.0	1.0	.9	.4	1.2	1.2	1.2	.0	4.8	11.3	11.3
	4-10	.4	1.5	11.0	19.8	6.1	4.5	4.0	5.1	.0	.0	52.4	52.4
	11-21	1.6	.0	4.8	5.8	.7	.1	7.0	2.5	.0	.0	22.6	22.6
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	2.7	1.5	16.8	26.5	7.3	5.8	12.2	8.9	.0	4.8	86.3	86.3
TOT OBS		168											
TOT PCT		4.5	1.5	17.4	30.7	7.9	7.0	14.0	11.8	.0	5.4	100.0	

PERIOD: (PRIMARY) 1862-1969  
(OVER-ALL) 1859-1969

MAPCM

AREA 0002 CHRISTMAS ISLAND  
10.05 104.9E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	400 999	500 1999	600 3499	700 4999	800 8499	900 7999	1000+	TOTAL	NM <5/8 ANY MGT	TOTAL OBS
00003	.0	.0	.0	6.7	16.7	13.3	.0	.0	.0	.0	36.7	63.3	30
06009	.0	.0	.0	6.1	15.2	9.1	.0	.0	.0	.0	30.3	69.7	33
12015	.0	.0	.0	6.9	10.3	10.3	.0	.0	.0	.0	27.6	72.4	29
18021	.0	.0	.0	9.7	9.7	6.5	.0	3.2	.0	.0	29.0	71.0	31
TOT	0	0	0	9	16	12	0	1	0	0	38	85	123
PCT	.0	.0	.0	7.3	13.0	9.8	.0	.8	.0	.0	30.9	69.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	.0	.0	100.0	38
06009	.0	.0	.0	.0	8.2	91.8	49
12015	.0	.0	.0	2.6	23.1	74.4	39
18021	.0	.0	.0	2.1	17.0	80.9	47
TOT	0	0	0	2	21	150	173
PCT	.0	.0	.0	1.2	12.1	86.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING MGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	6.9	31.0	62.1	29
06009	.0	.0	6.3	25.0	68.8	32
12015	.0	.0	10.3	17.2	72.4	29
18021	.0	.0	12.9	19.4	67.7	31
TOT	0	0	11	28	82	121
PCT	.0	.0	9.1	23.1	67.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	1.0	.0	.0	.0	1	1.0
85/89	.0	.0	.0	.0	7.0	8.8	2.9	.0	14	13.7
80/84	.0	.0	.0	.0	5.9	29.4	32.4	9.8	74	77.5
75/79	.0	.0	.0	.0	1.0	2.9	3.9	4	14	7.8
TOTAL	0	0	0	0	9	40	39	14	102	100.0
PCT	.0	.0	.0	.0	8.8	39.2	38.2	13.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0
85/89	.5	.0	4.2	2.9	.7	2.0	2.0	1.5	.0	.0
80/84	2.2	1.2	13.5	26.2	7.8	4.4	7.1	13.0	.0	2.0
75/79	.0	.0	1.0	3.2	.7	1.0	1.0	1.0	.0	.0
TOT	2.7	1.2	18.6	32.4	10.3	7.4	10.0	15.4	.0	2.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	87	86	82	79	78	78	82.4	94
06009	94	93	88	84	79	78	78	84.2	240
12015	90	88	87	83	79	76	76	82.6	114
18021	87	86	85	82	79	77	75	81.7	162
TOT	94	90	87	83	79	78	75	82.9	610

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	12.5	25.0	45.8	16.7	80	24		
06009	.0	.0	17.2	48.3	31.0	3.4	76	29		
12015	.0	.0	3.8	42.3	44.2	7.7	81	26		
18021	.0	.0	3.7	37.0	39.3	25.9	83	27		
TOT	0	0	10	41	41	14	80	106		

PERIOD: (PRIMARY) 1862-1969  
(OVER-ALL) 1859-1969

MARCH

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TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
5	.0	.8	.8	.8	3	.0	2.5
4	.0	.0	2.5	.0	3	.0	2.5
3	.0	.0	.8	.0	1	.0	.8
2	.0	3.4	5.1	.0	10	.0	8.5
1	.0	9.3	.8	.0	12	.0	10.2
0	1.7	13.6	1.7	.0	20	.0	16.9
-1	1.7	17.8	2.5	.0	26	.0	22.0
-2	2.5	6.8	.0	.0	11	.0	9.3
-3	5.9	9.3	.0	.0	18	.0	15.3
-4	.8	4.2	.0	.0	6	.0	5.1
-5	.8	1.7	.0	.0	3	.0	2.5
-6	1.7	.0	.0	.0	2	.0	1.7
-7/-8	1.7	.0	.0	.0	2	.0	1.7
-9/-10	.8	.0	.0	.0	1	.0	.8
TOTAL	21	79	17	.	118	0	118
PCT	17.8	60.9	14.4	.2	100.0		100.0

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	2.5	.0	.0	.0	.0	.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	2.0
5-6	.0	.0	1.5	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	1.5	.0	.0	.0	1.5	.0	2.5	.0	.0	.0	.0	2.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	10.0	.0	.0	.0	.0	10.0
1-2	.0	5.5	.0	.0	.0	.0	5.5	.0	8.5	.0	.0	.0	.0	8.5
3-4	.0	7.5	2.0	.0	.0	.0	9.5	.0	9.0	4.0	.0	.0	.0	9.0
5-6	.0	.0	1.5	.0	.0	.0	1.5	.0	.0	2.5	.0	.0	.0	2.5
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	13.0	3.5	.0	.0	.0	16.5	.0	23.5	6.5	.0	.0	.0	30.0

PERIOD: (OVER-ALL) 1963-1969

MARCH

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	2.0
1-2	.0	3.5	.0	.0	.0	.0	3.5	.0	4.0	.0	.0	.0	.0	.0	4.0
3-4	.0	3.0	.0	.0	.0	.0	3.0	.0	.5	.0	.0	.0	.0	.0	.5
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.5	.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
22-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	6.5	.0	.0	.0	.0	6.5	2.0	4.5	.5	.0	.0	.0	7.0	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	2.0	2.0	.0	.0	.0	.0	4.0	
1-2	.0	2.0	5.5	.0	.0	.0	7.5	.0	.0	.5	.0	.0	.0	.5	
3-4	.0	4.0	3.5	.0	.0	.0	7.5	.0	.0	4.5	.0	.0	.0	4.5	
5-6	.0	.0	2.0	.0	.0	.0	2.0	.0	.0	.5	2.0	.0	.0	2.5	
7	.0	.0	1.5	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	2.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	6.0	12.5	.0	.0	.0	18.5	2.0	2.0	7.5	2.0	.0	.0	13.5	96.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	7.7	13.5	.0	.0	.0	.0	21.2	085
1-2	1.4	23.1	5.8	.0	.0	.0	30.3	
3-4	.0	21.2	13.5	.0	.0	.0	34.7	
5-6	.0	.0	7.7	1.9	.0	.0	9.6	
7	.0	.0	1.9	.0	.0	.0	1.9	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	1.9	.0	.0	.0	1.9	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TCT PCT	9.6	57.7	30.8	1.9	.0	.0	100.0	52

PERIOD: (OVER-ALL) 1969-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.2	6.7	14.4	5.6	3.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	29	3
6-7	.0	6.7	14.4	7.8	2.3	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	30	4
8-9	.0	2.2	1.1	2.2	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	6
10-11	.0	.0	2.2	1.1	2.2	1.1	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	6
12-13	.0	.0	2.2	.0	3.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	5
>13	.0	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	7
INDEX	4.4	1.1	3.3	2.2	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	3
TOTAL	6	13	34	17	15	1	.0	2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	90	
PCT	6.7	16.7	37.8	18.9	16.7	1.1	.0	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	4

PERIOD: (PRIMARY) 1862-1971  
(OVER-ALL) 1855-1971

APRIL

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10.15 105.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DR7L	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW
N	38.9	.0	.0	.0	.0	.0	.0	38.9	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	3.4	1.7	.0	.0	.0	.0	5.1	3.0	3.0	.0	.0	.0	.0
SE	7.3	2.2	.0	.0	.0	.0	.0	9.5	.6	.6	.0	.0	.0	.0
S	13.6	.0	.0	.0	.0	.0	.0	13.6	.0	.0	.0	.0	.0	.0
SW	33.3	.0	.0	.0	.0	.0	.0	33.3	.0	.0	.0	.0	.0	.0
W	.0	.0	.0	.0	.0	.0	.0	.0	50.0	.0	.0	.0	.0	.0
NW	5.6	22.2	.0	.0	.0	.0	.0	27.8	44.4	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	5.1	2.9	.7	.0	.0	.0	.0	8.8	3.6	1.5	.0	.0	.0	.0
TOT OBS:	137													86.1

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DR7L	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW
00003	8.6	2.9	2.9	.0	.0	.0	.0	14.3	8.6	.0	.0	.0	.0	.0
06009	4.3	2.2	.0	.0	.0	.0	.0	6.5	2.2	.0	.0	.0	.0	.0
12015	5.3	2.6	.0	.0	.0	.0	.0	7.9	2.6	.0	.0	.0	.0	.0
18021	.0	4.5	.0	.0	.0	.0	.0	4.5	.0	9.1	.0	.0	.0	.0
TOT PCT	5.0	2.8	.7	.0	.0	.0	.0	8.5	3.5	1.4	.0	.0	.0	.0
TOT OBS:	141													86.5

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18
N	1.1	1.3	.7	.4	.1	.0		3.6	9.6	5.4	.0	6.0	.7	2.8	.0	1.7	1.3
NE	.4	4.3	3.3	.0	.0	.0		8.0	9.9	4.3	.0	11.5	7.9	5.6	33.3	8.0	6.5
E	1.3	17.8	24.9	4.1	.1	.0		48.1	12.9	43.8	33.2	46.7	48.2	50.6	33.3	47.4	55.2
SE	1.0	10.2	11.2	2.9	.1	.0		25.3	13.1	39.1	39.3	19.0	26.8	26.3	33.3	26.7	24.7
S	.5	2.4	1.2	.5	.0	.0		4.6	10.9	2.7	.0	3.1	5.0	6.0	.0	5.7	7.1
SW	.5	.6	.2	.0	.0	.0		1.3	6.0	1.1	33.3	1.0	2.1	2.1	.0	.6	.0
W	.4	1.0	.1	.5	.2	.2		2.3	17.2	2.2	.0	3.3	1.4	1.3	.0	3.4	1.3
NW	.2	1.2	.7	1.7	.2	.3		4.3	22.1	4.2	.0	5.2	7.9	2.8	.0	2.9	2.6
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.5							2.5	.0	1.1	.0	4.1	.0	2.6	.0	3.4	1.3
TOT OBS	50	250	272	65	4	3	644		12.6	92	3	195	70	117	3	87	77
TOT PCT	7.9	38.8	42.2	10.1	.6	.5		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	1.8	1.1	.3	.3	.0		3.6	9.6	5.3	4.6	2.7	1.5	
NE	2.2	4.8	1.0	.0	.0		8.0	9.9	4.2	10.6	6.3	7.3	
E	6.2	78.0	13.1	.9	.0		48.1	12.9	43.4	47.1	50.2	51.1	
SE	3.0	14.3	7.8	.2	.0		25.3	13.1	35.0	21.0	26.5	25.8	
S	1.1	2.4	1.1	.0	.0		4.6	10.9	2.6	3.6	5.8	6.4	
SW	.8	.5	.0	.0	.0		1.3	6.0	2.1	1.3	2.1	.3	
W	.9	.5	.2	.4	.3		2.3	17.2	2.1	2.8	1.3	2.4	
NW	.7	1.0	.9	1.2	.5		4.3	22.1	4.2	5.9	2.7	2.7	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	2.5						2.5	.0	1.1	3.0	2.5	2.4	
TOT OBS	124	359	157	19	5	644		12.6	95	265	170	164	
TOT PCT	19.3	55.8	24.4	3.0	.8		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1862-1971  
(OVER-ALL) 1855-1971

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	1.1	6.3	46.3	37.9	8.4	.0	.0	.0	11.6	100.0	95
06009	3.0	8.7	36.2	39.6	10.6	1.5	.4	.4	12.5	100.0	265
12015	2.5	1.7	40.0	46.7	8.3	.0	.0	.0	12.4	100.0	120
18021	2.4	1.8	37.8	45.7	11.6	.0	.0	.0	13.2	100.0	104
TOT	16	34	250	272	65	4	3	3	12.6		644
PCT	2.5	5.3	38.8	42.2	10.1	.6	.5		100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-10	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	1.6	1.6		7.2
NE	1.8	1.2	2.1	.0		3.5
E	6.0	17.9	13.8	3.9		4.5
SE	3.7	7.6	16.5	3.0		5.0
S	2.3	.7	.7	1.4		4.4
SW	.0	.9	.0	.9		2.1
W	.9	.0	.0	.9		4.0
NW	.9	.0	.7	3.0		6.6
VAR	.0	.0	.0	.0		.0
CALM	1.8	1.8	.0	.0		3.2
TOT OBS	19	35	39	16	109	4.7
TOT PCT	17.4	32.1	35.8	14.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NM <5/8	TOTAL
149	296	599	997	1997	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	1.6	.9	.0	.7	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.1
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	31.4
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21.3
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.4
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.6
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	78
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	109
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.0	.0	.0	.0	.0	.0	.0	.0
>5000	.0	.0	.0	.0	.0	.0	.0	.0
>3500	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
>2000	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
>1000	17.0	18.6	18.6	18.6	18.6	18.6	18.6	18.6
>600	22.3	25.0	25.0	25.0	25.0	25.0	25.0	25.0
>300	22.3	25.9	25.9	25.9	25.9	25.9	26.8	26.8
>150	22.3	25.9	25.9	25.9	25.9	25.9	26.8	26.8
>0	22.3	26.8	26.8	26.8	26.8	26.8	27.7	27.7
TOTAL	25	30	30	30	30	30	31	31

TOTAL NUMBER OF OBS: 112

PCT FREQ NM <5/8: 72.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

C	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
1.7	7.6	21.8	26.1	15.1	10.1	8.4	4.2	4.2	.8	119

PERIOD: (PRIMARY) 1862-1971  
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.7	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.7	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.7	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.7	
5<10	PCP	.7	.0	.7	2.2	.0	.7	.0	.7	.0	.0	5.1	
	NO PCP	.0	.2	1.5	1.1	1.6	.0	.0	.0	.0	.0	4.4	
	TOT %	.7	.2	2.2	3.3	1.6	.7	.0	.7	.0	.0	9.5	
10+	PCP	.5	.0	.7	.2	.5	.0	.0	.2	.0	.0	2.2	
	NO PCP	2.0	5.7	39.2	28.5	1.8	1.5	2.4	.0	.0	4.4	86.9	
	TOT %	2.5	5.7	40.0	28.6	2.4	1.5	2.6	.0	.0	4.4	89.1	
TOT OBS													137
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.7	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.7	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.7	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.7	
5<10	0-3	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	
	4-10	.0	.2	.5	3.4	1.6	.0	.0	.0	.0	.0	5.8	
	11-21	.0	.0	1.8	.5	.0	.7	.0	.7	.0	.0	3.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.7	.2	2.2	4.0	1.6	.7	.0	.7	.0	.0	10.1	
10+	0-3	.0	.0	.0	1.4	.0	.0	.7	.0	.0	4.3	6.5	
	4-10	2.0	4.2	20.1	14.7	2.4	1.4	.7	2.4	.0	.0	47.8	
	11-21	.5	1.4	19.6	12.3	.0	.0	.0	.2	.0	.0	34.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	2.5	5.6	39.7	28.4	2.4	1.4	1.4	2.5	.0	4.3	88.4	
TOT OBS													138
TOT PCT													100.0



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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	100 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	3.6	10.7	17.9	7.1	.0	.0	.0	.0	39.3	60.7	28
06009	.0	.0	.0	7.7	5.1	5.1	2.6	.0	.0	.0	20.5	79.5	39
12015	.0	.0	3.2	.0	16.1	3.2	3.2	.0	.0	.0	25.8	74.2	31
18021	5.3	.0	.0	5.3	10.5	.0	.0	.0	.0	.0	21.1	78.9	19
TOT	1	0	2	7	14	5	2	0	0	0	31	86	117
PCT	.9	.0	1.7	6.0	12.0	4.3	1.7	.0	.0	.0	26.5	73.5	100.0

TABLE 11

PERCENT FREQUENCY /SBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	.0	11.4	88.6	35
06009	.0	.0	.0	2.2	4.3	93.5	46
12015	2.6	.0	.0	.0	10.5	86.8	38
18021	.0	.0	.0	.0	21.7	78.3	23
TOT	1	0	0	1	15	125	142
PCT	.7	.0	.0	.7	10.6	88.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <300YD	<600 <1	<1000 <5	1000+ ANDS+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	3.6	14.3	25.0	60.7	28
06009	.0	.0	7.9	13.2	78.9	38
12015	.0	3.6	3.6	25.0	71.4	28
18021	5.6	5.6	11.1	11.1	77.8	10
TOT	1	3	10	21	81	112
PCT	.9	2.7	8.9	18.8	72.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.9	.0	.0	.0	1	.9
85/89	.0	.0	.0	.0	3.7	4.6	1.8	.0	11	10.1
80/84	.0	.0	.0	.9	5.9	36.7	33.9	6.4	91	83.5
75/79	.0	.0	.0	.0	.9	.9	2.8	5	4.6	
70/74	.0	.0	.0	.0	.0	.0	.0	.9	1	.9
TOTAL	0	0	0	1	11	46	40	11	109	100.0
PCT	.0	.0	.0	.9	10.1	42.2	36.7	10.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.2	.7	.0	.0	.0	.0	.0
.0	.0	3.4	5.7	.9	.0	.0	.0	.0	.0
2.5	7.3	36.7	25.0	3.4	.9	.9	1.1	.0	5.5
.0	.0	.0	2.8	.0	.9	.0	.9	.0	.0
.9	.0	.0	.0	.0	.0	.0	.0	.0	.0
3.4	7.3	40.1	33.7	5.0	1.8	.9	2.1	.0	5.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	97	88	86	82	80	74	74	82.6	91
06009	90	89	88	84	80	78	77	83.9	252
12015	86	85	85	83	79	76	76	82.5	115
18021	85	84	84	82	80	79	79	81.9	147
TOT	97	89	87	83	80	76	74	82.9	605

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	3.7	40.7	33.3	22.2	82	27
06009	.0	2.6	15.8	30.0	26.3	5.3	77	38
12015	.0	.0	3.8	38.5	50.0	7.7	80	26
18021	.0	.0	16.7	33.3	44.4	5.6	78	18
TOT	0	1	11	46	40	11	79	109

PERIOD: (PRIMARY) 1862-1971  
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOLT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	# FOG	WD FOG
5	.0	.0	.9	.9	1.8	4	.0	3.0
4	.0	.0	.9	1.8	.0	3	.0	2.7
3	.0	.0	.9	.9	.0	2	.0	1.8
2	.0	.0	1.8	1.8	.0	4	.0	3.0
1	.0	.0	13.6	3.6	.0	19	.0	17.3
0	.0	.0	17.3	.0	.0	19	.0	17.3
-1	.0	.9	15.5	.9	.0	19	.0	17.3
-2	.0	2.7	10.9	.0	.0	15	.0	13.6
-3	.0	.9	10.0	.0	.0	12	.0	10.9
-4	.0	1.8	2.7	.0	.0	5	.0	4.5
-5	.0	.0	1.8	.0	.0	2	.0	1.8
-6	.0	3.6	.0	.0	.0	4	.0	3.6
-7/-8	.0	.9	.0	.0	.0	1	.0	.9
-11/-13	.9	.0	.0	.0	.0	1	.0	.9
TOTAL	1		84		2		0	110
PCT	.9	10.9	76.4	19.0	1.8	110	100.0	100.0

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
01	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	1.2	.0	.0	.0	1.2	.0	3.3	3.3	.0	.0	.0	6.6
3-4	.0	1.6	.0	.0	.0	.0	1.6	.0	1.2	.0	.0	.0	.0	1.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.6	1.2	.0	.0	.0	2.9	.0	4.5	3.3	.0	.0	.0	7.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
01	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	7.0	4.5	.0	.0	.0	11.5	.0	4.9	3.7	.0	.0	.0	8.6
3-4	.0	16.4	14.3	.0	.0	.0	30.7	.0	8.6	2.0	.0	.0	.0	10.7
5-6	.0	1.6	3.7	.0	.0	.0	7.4	.0	1.6	.8	.0	.0	.0	2.5
7	.0	.0	1.6	.0	.0	.0	1.6	.0	1.6	1.6	.0	.0	.0	3.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	25.0	26.2	.0	.0	.0	51.2	.0	16.8	8.2	.0	.0	.0	25.0

PERIOD: (OVER-ALL) 1963-1971

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.2	.0	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0
3-4	.0	1.6	.0	.0	.0	.0	1.6	.0	1.6	.0	.0	.0	.0	1.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	.0	.0	.0	1.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.9	.0	.0	.0	.0	2.9	.0	1.6	1.6	.0	.0	.0	3.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.4	.4
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	.0	.0	.0	1.6	1.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	2.0	95.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	4.9	.0	.0	.0	.0	.0	4.9	785
1-2	.0	16.4	13.1	.0	.0	.0	29.5	
3-4	.0	31.1	18.0	.0	.0	.0	49.2	
5-6	.0	3.3	8.2	.0	.0	.0	11.5	
7	.0	1.6	3.3	.0	.0	.0	4.9	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.9	52.5	42.6	.0	.0	.0	100.0	61

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.0	4.9	17.6	6.9	2.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	34	4
6-7	.0	2.0	15.7	13.7	6.9	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	40	4
8-9	.0	1.0	2.0	2.9	6.9	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	6
10-11	.0	.0	.0	1.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	6
12-13	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	3
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	2.0	.0	1.0	4.9	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	4
TOTAL	3	8	38	30	19	3	1	0	0	0	0	0	0	0	0	0	0	0	0	102	4
PCT	2.9	7.8	37.3	29.4	18.6	2.9	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1968-1969  
(OVER-ALL) 1855-1969

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHMR	DR7L	FRZG PCPN	SNOW	OTHR FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FG PCPN	FG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLNG DUST SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	76.7	.0	.0	.0	.0	.0	76.7	.0	.0	.0	.0	.0	73.3
E	2.9	.0	1.7	.0	.0	.0	.0	4.5	3.3	2.1	.0	.0	.0	51.3
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.2	.0	.0	.0	93.2
S	.0	.0	.0	.0	.0	.0	.0	.0	21.4	.0	.0	.0	.0	78.6
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	1.7	.8	.8	.0	.0	.0	.0	3.3	2.5	3.3	.0	.0	.0	91.7
TOT OBS:	121													

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHMR	DR7L	FRZG PCPN	SNOW	OTHR FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FG PCPN	FG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLNG DUST SIG WEA
00003	.0	.0	.0	.0	.0	.0	.0	.0	2.9	.0	.0	.0	.0	97.1
06009	3.3	3.3	3.3	.0	.0	.0	.0	10.0	.0	.0	.0	.0	.0	90.0
12015	3.6	.0	.0	.0	.0	.0	.0	3.6	.0	7.1	.0	.0	.0	92.9
18021	.0	.0	.0	.0	.0	.0	.0	.0	6.9	6.9	.0	.0	.0	86.2
TOT PCT	1.7	.8	.8	.0	.0	.0	.0	3.3	2.5	3.3	.0	.9	.0	91.7
TOT OBS:	121													

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.5	.3	.3	.0	.0	.0	1.1	7.4	.9	.0	1.2	.9	.0	.0	2.6	.9		
NE	.6	2.2	3.0	.5	.0	.0	6.3	12.1	3.8	.0	9.1	7.0	6.7	.0	5.5	5.2		
E	.7	14.7	26.5	4.4	.3	.0	48.6	13.4	50.3	50.0	49.0	40.4	31.6	.0	47.1	50.9		
SE	.9	11.1	17.7	3.5	.1	.0	33.3	13.7	34.6	50.0	31.2	35.1	39.2	.0	34.2	34.5		
S	.1	4.5	2.5	.2	.0	.0	7.4	10.0	6.7	.0	6.0	12.3	7.1	.0	8.6	6.0		
SW	.3	.4	.0	.0	.0	.0	.6	5.1	1.2	.0	.9	.0	1.1	.0	.0	.0		
W	.4	.5	.0	.0	.0	.0	.9	4.8	1.2	.0	.6	.0	1.1	.0	1.1	1.7		
NW	.3	.6	.3	.0	.0	.0	1.2	8.3	1.5	.0	.9	4.4	.0	.0	.9	.9		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	.5						.5	.0	.0	.0	1.2	.0	1.1	.0	.0	.0		
TOT OBS	24	200	277	47	2	0	550		12.8	86	1	170	57	91	0	87	58	
TOT PCT	4.4	36.4	50.4	8.5	.4	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	00 03	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+					06	12	18	21	
N	.5	.4	.2	.0	.0		1.1	7.4	.9	1.1	.0	1.9		
NE	1.1	3.4	1.8	.0	.0		6.3	12.1	3.7	8.6	4.7	5.3		
E	5.6	27.5	14.0	1.5	.0		48.6	13.4	50.3	46.8	51.6	48.6		
SE	3.9	17.3	11.2	.9	.0		33.3	13.7	34.8	32.2	33.2	34.3		
S	1.5	5.5	.4	.0	.0		7.4	10.0	6.6	7.6	7.1	7.6		
SW	.5	.2	.0	.0	.0		.6	5.1	1.1	.7	1.1	.0		
W	.7	.2	.0	.0	.0		.9	4.8	1.1	.4	1.1	1.4		
NW	.2	.9	.0	.0	.0		1.2	8.3	1.4	1.8	.0	.9		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	.5						.5	.0	.0	.9	1.1	.0		
TOT OBS	61	304	192	13	0	550		12.8	87	227	91	145		
TOT PCT	14.7	55.3	27.6	2.4	.0		100.0		100.0	100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1968-1969  
(OVER-ALL) 1959-1969

MAY

AREA 0002 CHRISTMAS ISLAND  
10.15 105.2E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GHT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				MEAN	PCT REQ	TOTAL OBS
				11-21	22-33	34-47	48+			
00003	.0	3.4	40.2	49.4	5.7	1.1	.0	12.5	100.0	67
06009	.9	4.8	35.7	49.3	8.8	.4	.0	12.8	100.0	227
12015	1.1	3.3	36.3	51.6	7.7	.0	.0	12.8	100.0	91
18021	.0	2.8	35.2	51.7	10.3	.0	.0	13.1	100.0	143
TOT	3	21	200	277	47	2	0	12.8		550
PCT	.5	3.8	36.4	50.4	8.5	.4	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.9	.0	2.1	.0		4.5
NE	1.5	.9	1.5	.0		4.1
E	15.6	17.1	12.4	2.1		3.6
SE	12.4	11.5	10.3	3.8		4.0
S	.0	.0	.6	.0		6.0
SW	.0	1.2	.0	.0		4.0
W	.0	2.4	1.2	.0		4.3
NW	.3	.0	.3	.0		3.5
VAR	.0	.0	.0	.0		.0
CALM	1.2	.0	.0	1.2		5.0
TOT OBS	27	28	24	6	85	3.9
TOT PCT	31.8	32.9	28.2	7.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000 149	150 290	300 499	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NM <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.9
NE	.0	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	2.6
E	.0	.0	.0	.9	2.4	1.2	.0	.0	.0	.0	.0	42.6
SE	.0	.0	.0	.3	3.5	1.2	.6	.0	.0	.0	1.2	31.2
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.5
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4
TOT OBS	0	1	0	1	6	2	1	0	0	1	74	85
TOT PCT	.0	.0	.0	1.2	7.1	2.4	1.2	.0	.0	1.2	87.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
>5000	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
>3500	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
>2000	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
>1000	9.5	10.7	11.9	11.9	11.9	11.9	11.9	11.9
>600	10.7	11.9	13.1	13.1	13.1	13.1	13.1	13.1
>300	10.7	11.9	13.1	13.1	13.1	13.1	13.1	13.1
>150	10.7	11.9	13.1	13.1	13.1	13.1	13.1	13.1
>0	10.7	11.9	13.1	13.1	13.1	13.1	13.1	13.1
TOTAL	9	10	11	11	11	11	11	11

TOTAL NUMBER OF OBS: 84

PCT FREQ NM <5/8: 86.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
3.0	20.2	21.2	24.2	18.2	3.0	5.1	4.0	1.0	.0	99

PERIOD: (PRIMARY) 1868-1969  
(OVER-ALL) 1855-1969

MAY

AREA 0002 CHRISTMAS ISLAND  
10.1S 105.2E

TABLE 3

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.8	1.0	.6	.0	.8	.0	.0	.0	.0	3.3
	TOT %	.0	.0	.8	1.0	.6	.0	.8	.0	.0	.0	.0	3.3
5<10	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.6	.0	6.9	4.0	.0	.0	.8	.2	.0	.0	.0	12.5
	TOT %	.6	.0	6.9	4.0	.0	.0	.8	.2	.0	.0	.0	12.5
10+	PCP	.0	.8	2.3	.2	.0	.0	.0	.0	.0	.0	.0	3.3
	NO PCP	1.5	2.3	40.4	31.7	2.3	.0	.8	.2	.0	1.7	80.6	80.6
	TOT %	1.5	3.1	42.7	31.9	2.3	.0	.8	.2	.0	1.7	84.2	84.2
TOT OBS													
TOT PCT													
		2.1	3.1	50.4	36.9	2.9	.0	2.5	.4	.0	1.7	100.0	12

TABLE 4

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.7	.7
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.7	.7
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.7	.7
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.7	.7
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	1.4	.7	.0	.0	.7	.0	.0	.0	.0	2.8
	11-21	.0	.0	.7	.2	.5	.0	.0	.0	.0	.0	.0	1.4
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	2.1	.9	.5	.0	.7	.0	.0	.0	.0	4.2
5<10	0-3	.5	.0	.7	.0	.0	.0	.7	.2	.0	.0	.0	2.1
	4-10	.0	.0	2.8	1.4	.0	.0	.0	.0	.0	.0	.0	4.2
	11-21	.0	.0	.9	1.9	.0	.0	.0	.0	.0	.0	.0	2.8
	22+	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0	1.4
	TOT %	.5	.0	5.8	3.3	.0	.0	.7	.2	.0	.0	.0	10.5
10+	0-3	.5	.4	.7	1.1	.0	.0	.0	.2	.0	1.4	4.2	4.2
	4-10	.7	1.4	20.1	17.3	1.4	.0	.7	.0	.0	.0	41.5	41.5
	11-21	.0	.9	22.0	12.5	.5	.0	.0	.0	.0	.0	35.9	35.9
	22+	.0	.0	.4	1.8	.0	.0	.0	.0	.0	.0	2.1	2.1
	TOT %	1.2	2.6	43.1	32.6	1.9	.0	.7	.2	.0	1.4	83.6	83.6
TOT OBS													
TOT PCT													
		1.8	2.6	52.5	36.8	2.5	.0	2.1	.4	.0	1.4	100.0	142

MAY

PERIOD: (PRIMARY) 1868-1969  
(OVER-ALL) 1855-1969AREA 0002 CHRISTMAS ISLAND  
10.15 105.2E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	3.6	.0	7.1	3.6	.0	.0	3.6	17.9	82.1	28
06009	.0	.0	.0	.0	11.5	.0	.0	.0	.0	.0	11.5	88.5	26
12015	.0	.0	.0	.0	4.3	.0	.0	.0	.0	.0	4.3	95.7	73
18021	.0	.0	.0	.0	10.0	.0	.0	.0	.0	.0	10.0	90.0	20
TOT	0	0	0	1	6	2	1	0	0	1	11	86	97
PCT	.0	.0	.0	1.0	6.2	2.1	1.0	.0	.0	1.0	11.3	88.7	100.0

TABLE 11

PERCENT FREQUENCY VSRY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	2.7	10.8	86.5	37
06009	.0	.0	.0	2.8	5.6	91.7	36
12015	3.0	.0	.0	3.0	15.2	78.8	33
18021	.0	2.8	.0	8.3	11.1	77.8	36
TOT	1	1	0	6	15	119	142
PCT	.7	.7	.0	4.2	10.6	83.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSRY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	4.0	16.0	80.0	25
06009	.0	.0	4.8	9.5	85.7	21
12015	.0	.0	.0	5.0	95.0	20
18021	.0	.0	5.6	11.1	83.3	18
TOT	0	0	3	9	72	84
PCT	.0	.0	3.6	10.7	85.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP-

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.0	3.3	1.1	.0	4	4.4
80/84	.0	.0	.0	.0	4.4	42.2	35.6	10.0	83	92.2
75/79	.0	.0	.0	.0	.0	.0	3.3	.0	3	3.3
TOTAL	0	0	0	0	4	41	36	9	90	100.0
PCT	.0	.0	.0	.0	4.4	45.6	40.0	10.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
0	.0	1.7	2.8	.0	.0	.0	.0	.0	.0
1.9	1.4	48.9	33.6	.6	1.1	3.3	.3	.0	1.1
.3	1.1	.8	1.4	.0	.0	.0	.0	.0	.0
1.9	2.5	51.4	37.8	.6	1.1	3.3	.3	.0	1.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	87	86	84	82	78	75	75	81.3	83
06009	88	87	86	83	79	76	74	82.7	211
12015	84	83	83	82	80	79	79	81.9	85
18021	84	83	83	81	78	77	76	81.1	131
TOT	88	87	85	82	79	76	74	81.9	516

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	3.8	42.3	46.2	7.7	80	26
06009	.0	.0	8.3	50.0	33.3	8.3	78	24
12015	.0	.0	4.0	47.6	33.3	14.3	80	21
18021	.0	.0	.0	42.1	47.4	10.5	82	19
TOT	0	0	4	41	36	9	80	90

PERIOD: (PRIMARY) 1968-1969  
(OVER-ALL) 1955-1969

MAY

TABLE 17

AREA 0002 CHRISTMAS ISLAND  
10.15 105.2E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	TOT	# FOG	NO FOG
9/10	.0	.0	1.0	.0	1	.0	1.0
7/8	.0	.0	.0	1.0	1	.0	1.0
4	.0	.0	1.0	.0	1	.0	1.0
3	.0	.0	4.0	1.0	5	.0	5.0
2	.0	.0	5.0	2.0	7	.0	7.0
1	.0	.0	12.0	.0	12	.0	12.0
0	.0	2.0	26.0	1.0	29	.0	29.0
-1	.3	1.0	14.0	.0	15	.0	15.0
-2	.0	1.0	15.0	.0	16	.0	16.0
-3	.0	2.0	2.0	.0	4	.0	4.0
-4	1.0	3.0	3.0	.0	7	.0	7.0
-5	.0	.0	2.0	.0	2	.0	2.0
TOTAL	1		85		100	0	100
PCT	1.0	9.0	85.0	9.0	100.0		100.0

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N								NE							
PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3	.0	.0	.0	2.3	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3	.0	.0	.0	2.3	

E								SE							
PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	9.3	.0	.0	.0	.0	9.3	.0	11.8	4.7	.0	.0	.0	16.3	
3-4	.0	8.1	12.8	.0	.0	.0	20.9	.0	8.1	3.5	2.3	.0	.0	14.0	
5-6	.0	4.1	20.3	.0	.0	.0	24.4	.0	.0	5.2	2.3	.0	.0	8.1	
7	.0	.0	2.3	.0	.0	.0	2.3	.0	.0	2.3	.0	.0	.0	2.3	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	21.3	39.3	.0	.0	.0	57.0	.0	20.3	19.7	4.7	.0	.0	40.7	



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TABLE 18 (CONT)

PCT INFO OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

[illegible]

WIND SPEED (KTS) VS SEA HEIGHT (FT)

MGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	20.9	4.7	.0	.0	.0	25.6	
3-4	.0	16.3	16.3	2.3	.0	.0	34.9	
5-6	.0	4.7	27.5	2.3	.0	.0	34.9	
7	.0	.0	4.7	.0	.0	.0	4.7	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
37*	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	41.9	53.5	4.7	.0	.0	100.0	43

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

[illegible]

PERIOD: (PRIMARY) 1964-1969  
(OVER-ALL) 1853-1969

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DR7L	FRZG PCPN	SNOW	OTHER FRZN PCPN	MAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THOR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	21.4	.0	.0	.0	.0	.0	78.6
NE	.0	.0	.0	.0	.0	.0	.0	.0	2.7	.0	.0	.0	.0	.0	97.3
E	1.5	1.1	.0	.0	.0	.0	.0	2.7	3.1	.0	.0	.0	.0	.0	94.3
SE	8.8	2.2	.0	.0	.0	.0	.0	11.0	1.8	5.3	.0	.0	.0	.0	83.7
S	.0	23.5	.0	.0	.0	.0	.0	23.5	.0	.0	.0	.0	.0	.0	76.5
SW	.0	50.0	.0	.0	.0	.0	.0	50.0	.0	.0	.0	.0	.0	.0	50.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	4.2	2.8	.0	.0	.0	.0	.0	7.0	2.8	2.1	.0	.0	.0	.0	88.8
TOT OBS	143														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DR7L	FRZG PCPN	SNOW	OTHER FRZN PCPN	MAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THOR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	3.8	3.8	.0	.0	.0	.0	.0	7.7	3.8	.0	.0	.0	.0	.0	88.5
06009	5.0	.0	.0	.0	.0	.0	.0	5.0	.0	.0	.0	.0	.0	.0	95.0
12015	4.8	.0	.0	.0	.0	.0	.0	4.8	2.4	4.8	.0	.0	.0	.0	88.1
18021	2.9	8.6	.0	.0	.0	.0	.0	11.4	5.7	2.9	.0	.0	.0	.0	82.9
TOT PCT	4.2	2.8	.0	.0	.0	.0	.0	7.0	2.8	2.1	.0	.0	.0	.0	88.8
TOT OBS	143														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.5	1.1	.2	.1	.0	.0	1.9	7.0	1.4	.0	2.8	1.4	1.7	.0	1.6	2.2		
NE	.7	4.1	4.0	.7	.0	.0	10.4	11.3	7.9	.0	13.2	13.0	9.5	7.1	7.1	8.7		
E	.6	11.7	32.1	7.3	.4	.0	52.1	15.2	52.4	100.0	46.9	36.3	51.7	42.9	53.8	56.5		
SE	.6	5.3	17.8	4.5	.3	.0	28.6	15.8	33.5	.0	25.8	23.1	30.2	50.0	29.2	30.0		
S	.1	1.3	7.0	.9	.0	.0	3.7	13.1	2.4	.0	4.4	3.7	3.2	.0	6.0	1.7		
SW	.2	.2	.0	.0	.0	.0	.4	3.5	.8	.0	.2	.9	.0	.0	.7	.0		
W	.1	.1	.1	.0	.0	.0	.3	7.0	.0	.0	.9	.0	.0	.0	.4	.0		
NW	.6	.5	.2	.0	.0	.0	1.3	5.9	.8	.0	3.4	.5	.7	.0	.4	.0		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	1.4						1.4	.0	.8	.0	1.7	.9	2.7	.0	.7	.9		
TOT OBS	42	220	494	113	6	0	875		14.3	126	1	233	108	148	7	137		
TOT PCT	4.8	25.1	56.5	12.9	.7	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	1.3	.5	.2	.0	.0		1.9	7.0	1.4	2.3	1.6	1.9
NE	2.5	5.5	2.3	.2	.0		10.4	11.3	7.9	13.6	9.7	7.8
E	3.9	24.2	21.3	2.6	.0		52.1	15.2	52.4	49.9	51.3	55.1
SE	2.5	11.7	12.6	1.8	.0		28.6	15.8	33.5	24.9	31.1	29.6
S	.3	2.3	1.1	.0	.0		3.7	13.1	2.4	4.2	3.1	4.1
SW	.4	.0	.0	.0	.0		.4	3.5	.8	.4	.0	.4
W	.2	.1	.0	.0	.0		.3	7.0	.0	.6	.0	.2
NW	.9	.3	.1	.0	.0		1.3	5.9	.8	2.5	.6	.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.4						1.4	.0	.8	1.5	2.6	.9
TOT OBS	118	390	329	40	0	875		14.3	127	241	155	252
TOT PCT	13.3	44.6	37.6	4.6	.0		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND			SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47					
00603	.8	2.4	26.0	58.3	11.8	.8	.0	14.6	100.0	127	
06009	1.5	5.0	25.8	52.5	14.7	.6	.0	14.2	100.0	341	
12615	2.6	2.6	26.4	57.4	9.0	.0	.0	13.3	100.0	155	
18621	.8	2.4	21.8	60.3	13.5	1.2	.0	15.0	100.0	252	
TOT	12	30	270	494	113	6	0	14.3		875	
PCT	1.4	3.4	25.1	56.5	12.9	.7	.0	100.0			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSO	TOTAL CBS	MEAN CLOUD COVER
N	1.9	.7	.0	.7		2.9
N E	4.2	1.7	.7	.7		2.4
E	15.3	15.1	14.9	3.5		3.8
SE	9.9	12.7	10.4	2.1		3.8
S	.7	.0	2.4	.9		5.9
SW	.0	.0	.0	.0		.0
W	.0	.0	.0	.0		.0
NW	.0	.0	.9	.0		6.0
VAR	.0	.0	.0	.0		.0
CALM	.9	.0	.0	.0		2.0
TOT OBS	35	32	31	8	106	
TOT PCT	33.0	30.2	29.7	7.5	100.0	3.8

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH  $\geq 4/8$ )  
AND OCCURRENCE OF NH  $\leq 3/8$  BY WIND DIRECTION

000	100	200	300	400	500	600	700	800+	NH	ANY	TOTAL
149	299	399	499	599	699	799	899	999	1000	1000	055
.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	7.6
.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	6.0
.0	.0	.7	1.7	1.9	2.4	.9	.0	.0	.0	.0	41.3
.0	.0	1.2	1.2	3.1	1.7	.0	.0	.0	.0	.0	28.1
.0	.0	.0	1.9	.7	.7	.0	.0	.0	.0	.0	.7
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9
.0	.0	.2	.5	.6	.1	.0	.0	.0	.0	.0	8.6
.0	.0	1.9	4.7	5.7	5.7	.9	.0	.0	.0	.0	81.1

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM 24/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.0	.0	.0	.0	.0	.0	.0	.0
= OR >5000	.0	.0	.0	.0	.0	.0	.0	.0
= OR >3500	.0	.0	.9	.9	.9	.9	.9	.9
= OR >2000	4.7	5.7	6.6	6.6	6.6	6.6	6.6	6.6
= OR >1000	9.4	11.3	12.3	12.3	12.3	12.3	12.3	12.3
= OR >600	11.3	15.1	16.0	16.0	17.0	17.0	17.0	17.0
= OR >300	11.3	16.0	17.9	17.9	18.9	18.9	18.9	18.9
= OR >150	11.3	16.0	17.9	17.9	18.9	18.9	18.9	18.9
= OR > 0	11.3	16.0	17.9	17.9	18.9	18.9	18.9	18.9
TOTAL	12	17	19	19	20	20	20	20

TOTAL NUMBER OF OBS: 106

PCT FREQ NH C9/B1 01.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
2.6	19.3	26.3	21.1	11.4	5.3	5.3	3.5	5.3	.0	114

PERIOD: (PRIMARY) 1864-1969  
(OVER-ALL) 1855-1969

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.7	
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.7	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.5	.2	.0	.7	.0	.0	.0	.0	1.4	
NO PCP	.0	.0	1.2	.2	.0	.0	.0	.0	.0	.0	.0	1.4	
TOT %	.0	.0	1.7	.3	.0	.7	.0	.0	.0	.0	.0	2.8	
5<10	PCP	.0	.0	.0	3.5	.7	.0	.0	.0	.0	.0	4.2	
NO PCP	.0	.0	5.6	2.8	.0	.0	.0	.0	.0	.0	.0	8.4	
TOT %	.0	.0	5.6	6.3	.7	.0	.0	.0	.0	.0	.0	12.6	
10+	PCP	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.7	
NO PCP	2.4	6.5	37.6	32.3	2.3	.7	.0	.7	.0	.7	.0	83.2	
TOT %	2.4	6.5	37.6	33.0	2.3	.7	.0	.7	.0	.7	.0	83.9	
TOT OBS													143
TOT PCT		2.4	6.5	45.6	39.7	3.0	1.4	.0	.7	.0	.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.7	
4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.7	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	0-3	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.7	
4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
11-21	.0	.0	1.7	.3	.0	.0	.0	.0	.0	.0	.0	2.1	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	1.7	.3	.0	.7	.0	.0	.0	.0	.0	2.7	
5<10	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4-10	.0	.0	3.4	4.1	.0	.0	.0	.0	.0	.0	.0	7.5	
11-21	.0	.0	2.1	2.1	.7	.0	.0	.0	.0	.0	.0	4.8	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	5.5	6.2	.7	.0	.0	.0	.0	.0	.0	12.3	
10+	0-3	.5	.2	.7	.0	.0	.0	.0	.0	.0	.7	2.1	
4-10	1.9	5.3	16.4	9.6	1.7	.7	.0	.7	.0	.0	.0	36.3	
11-21	.0	.9	19.3	23.1	.5	.0	.3	.3	.0	.0	.0	44.3	
22+	.0	.0	1.0	.3	.0	.0	.0	.0	.0	.0	.0	1.4	
TOT %	2.4	6.3	37.5	33.0	2.2	.7	.3	1.0	.0	.7	.7	84.2	
TOT OBS													146
TOT PCT		2.4	6.3	45.4	39.6	2.9	1.4	.3	1.0	.0	.7	100.0	

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PERIOD: (PRIMARY) 1964-1969  
(OVER-ALL) 1855-1969AREA 0002 CHRISTMAS ISLAND  
10.05 105.2E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 259	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	9.1	.0	4.5	.0	.0	.0	.0	.0	13.6	86.4	22
06009	.0	.0	.0	3.3	6.7	3.3	.0	.0	.0	.0	13.3	86.7	30
12015	.0	.0	.0	3.2	3.2	9.7	3.2	.0	.0	.0	19.4	80.6	31
18021	.0	.0	.0	10.3	6.9	6.9	.0	.0	.0	.0	24.1	75.9	29
TOT	0	0	2	5	6	6	1	0	0	0	20	92	112
PCT	.0	.0	1.8	4.5	5.4	5.4	.9	.0	.0	.0	17.9	82.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	3.8	11.5	84.6	26
06009	.0	2.5	.0	.0	7.5	90.0	40
12015	.0	.0	.0	4.7	11.6	83.7	43
18021	.0	.0	.0	2.7	18.9	78.4	37
TOT	0	1	0	4	18	123	146
PCT	.0	.7	.0	2.7	12.3	84.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	9.1	9.1	4.5	86.4	22
06009	.0	3.6	3.6	10.7	83.7	28
12015	.0	.0	10.3	13.8	75.9	29
18021	.0	.0	11.1	14.8	74.1	27
TOT	0	3	9	12	85	106
PCT	.0	2.8	8.5	11.3	80.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.0	2.8	.0	.0	3	2.8
80/84	.0	.0	.0	.9	8.3	35.2	27.8	3.7	82	75.9
75/79	.0	.0	.0	.0	.0	6.5	6.5	8.3	23	21.3
TOTAL	0	0	0	1	9	48	37	13	108	100.0
PCT	.0	.0	.0	.9	8.3	44.4	34.3	12.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	2.8	.0	.0	.0	.0	.0	.0	.0
80/84	.9	5.3	39.4	28.7	.7	.0	.0	.0	.0	.9
75/79	.7	1.2	9.3	7.4	1.9	.0	.0	.9	.0	.0
TOTAL	1.6	6.5	51.4	36.1	2.5	.0	.0	.9	.0	.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	90%	75%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	85	84	83	81	77	75	75	80.3	123
06009	90	88	85	82	78	75	75	81.5	322
12015	86	85	83	81	78	75	74	80.6	147
18021	85	84	82	80	77	73	73	79.9	234
TOT	90	86	84	81	77	75	73	80.7	826

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	9.1	40.9	36.4	13.3	80	22		
06009	.0	.0	14.8	51.9	25.9	7.4	77	27		
12015	.0	3.1	6.3	37.5	40.6	12.5	80	32		
18021	.0	.0	3.7	48.1	33.3	14.8	80	27		
TOT	0	1	9	48	37	13	79	108		

PERIOD: (PRIMARY) 1864-1969  
(OVER-ALL) 1855-1969

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TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 70	77 70	81 84	85 88	TGT	# FOG	WD FOG
7/8	.0	.0	.8	.0	1	.0	.8
5	.0	.0	.0	.8	1	.0	.8
4	.0	.0	.0	.8	1	.0	.8
3	.0	.0	3.1	.0	4	.0	3.1
2	.0	.8	9.2	.8	14	.0	11.7
1	.0	2.3	11.5	.0	18	.0	13.7
0	.0	6.9	14.5	.0	28	.0	21.4
-1	.0	11.5	6.9	.0	24	.0	18.3
-2	.8	9.9	6.9	.0	23	.0	17.6
-3	.8	3.8	2.3	.0	9	.0	6.9
-5	.0	1.5	.8	.0	3	.0	2.3
-6	.0	.8	.0	.0	1	.0	.8
-7/-8	.0	.8	1.5	.0	3	.0	2.3
-11/-13	.8	.0	.0	.0	1	.0	.8
TOTAL	3	50	75	3	131	0	131
PCT	2.3	38.2	57.3	2.3	100.0		100.0

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	2.9	.0	.0	.0	.0	3.9
3-4	.0	.0	.0	.0	.0	.0	.0	.0	2.2	.0	.0	.0	.0	2.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.4
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	6.1	.4	.0	.0	.0	6.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	1.8	9.6	.0	.0	.0	.0	11.4	.0	11.0	2.2	.0	.0	.0	13.2
3-4	.0	2.6	13.2	.0	.0	.0	15.8	.0	2.2	7.9	.0	.0	.0	10.1
5-6	.0	1.8	9.6	1.3	.0	.0	12.7	.0	.0	5.7	.4	.0	.0	6.1
7	.0	.0	9.6	.0	.0	.0	9.6	.0	.0	4.4	.0	.0	.0	4.4
8-9	.0	.0	1.8	.0	.0	.0	1.8	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	1.8	.0	.0	.0	1.8	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.8	14.0	36.0	1.3	.0	.0	53.1	.0	13.2	25.2	.4	.0	.0	33.8

PERIOD: (OVER-ALL) 1963-1969

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AREA 0002 CHRISTMAS ISLAND  
10.05 105.2E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.8	1.3	.0	.0	.0	3.1	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	1.8	.0	.0	.0	1.8	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.8	3.1	.0	.0	.0	4.8	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	98.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	1.8	.0	.0	.0	.0	.0	1.8	035
1-2	1.8	26.3	3.5	.0	.0	.0	31.6	
3-4	.0	7.0	21.1	.0	.0	.0	28.1	
5-6	.0	1.8	17.5	1.8	.0	.0	21.1	
7	.0	.0	14.0	.0	.0	.0	14.0	
8-9	.0	.0	1.8	.0	.0	.0	1.8	
10-11	.0	.0	1.8	.0	.0	.0	1.8	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.5	35.1	59.6	1.8	.0	.0	100.0	57

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.1	15.1	2.2	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	2
6-7	.0	3.2	7.5	8.6	9.7	5.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	32	5
8-9	.0	.0	.0	8.6	11.8	1.1	.0	4.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	24	7
10-11	.0	.0	.0	.0	1.1	3.2	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	8
12-13	.0	.0	.0	.0	1.1	1.1	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	8
>13	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	5
INDEX	.0	2.2	2.2	2.2	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	93	4
TOTAL	1	19	11	22	24	10	2	4	0	0	0	0	0	0	0	0	0	0	0	93	3
PCT	1.1	20.4	11.8	23.7	25.8	10.8	2.2	4.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1863-1971  
(OVER-ALL) 1954-1971

JULY

AREA 0002 CHRISTMAS ISLAND  
10.05 105.3E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG YD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG MEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	6.7	.0	1.9	.0	.0	.0	91.4
SE	3.8	.0	.0	.0	.0	.0	.0	3.8	6.6	.0	3.8	.0	.0	.0	86.3
S	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	.0	.0	.0	.0	80.0
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.1	.0	.0	.0	.0	.0	.0	2.1	6.2	.0	2.8	.0	.0	.0	99.0
TOT OBS:	145														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG MEA
00003	8.6	.0	.0	.0	.0	.0	.0	8.6	3.7	.0	2.9	.0	.0	.0	82.9
06009	.0	.0	.0	.0	.0	.0	.0	.0	2.2	.0	4.4	.0	.0	.0	93.3
12015	.0	.0	.0	.0	.0	.0	.0	.0	8.6	.0	2.9	.0	.0	.0	88.6
18021	.0	.0	.0	.0	.0	.0	.0	.0	10.0	.0	.0	.0	.0	.0	90.0
TOT PCT TOT OBS:	2.1 145	.0	.0	.0	.0	.0	.0	2.1	6.2	.0	2.8	.0	.0	.0	89.0

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)						TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+				00	03	06	09	12	15	18	21
N	.2	.6	.0	.0	.0	.0		.9	5.6	.0	.0	2.5	.0	.6	.0	.6	.0
NE	.4	2.2	3.3	.7	.1	.0		6.7	13.4	.0	.0	7.1	9.9	5.3	.0	6.3	4.7
E	.4	6.8	38.6	13.7	1.1	.0		60.6	17.5	.0	.0	56.3	43.0	80.0	50.0	61.6	69.7
SE	.1	4.6	17.6	5.4	.8	.0		28.5	16.9	.0	.0	28.2	24.5	30.9	50.0	29.1	23.5
S	.3	.5	1.2	.0	.2	.0		2.3	13.7	.0	.0	2.6	1.6	3.0	.0	2.4	2.1
SW	.2	.1	.1	.0	.0	.0		.4	5.5	.0	.0	.6	1.0	.0	.0	.0	.0
W	.1	.0	.0	.0	.0	.0		.1	2.0	.0	.0	.4	.0	.0	.0	.0	.0
NW	.2	.4	.0	.0	.0	.0		.6	3.2	.0	.0	2.3	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT OBS	18	135	941	176	19	0	889		16.7	135	0	240	96	165	2	134	117
TOT PCT	2.0	15.2	60.9	19.8	2.1	.0		100.0		100.0	.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	.6	.3	.0	.0	.0	.0	.9	5.6	.0	1.8	.6	.3		
NE	.7	3.8	1.9	.3	.0	.0	6.7	13.4	7.6	7.9	5.4	5.6		
E	1.8	20.5	33.9	4.3	.0	.0	60.6	17.5	58.5	58.2	59.9	65.3		
SE	1.2	11.1	14.4	1.7	.0	.0	28.5	16.9	32.0	27.2	31.1	26.5		
S	.6	.7	.8	.2	.0	.0	2.3	13.7	1.3	2.3	3.0	2.3		
SW	.3	.1	.0	.0	.0	.0	.4	5.5	.7	.7	.0	.0		
W	.1	.0	.0	.0	.0	.0	.1	2.0	.0	.3	.0	.0		
NW	.4	.2	.0	.0	.0	.0	.6	3.2	.0	1.6	.0	.0		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT OBS	51	326	454	58	0	889		16.7	135	336	167	251		
TOT PCT	5.7	36.7	51.1	6.5	0		100.0		100.0	100.0	100.0	100.0		



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HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			40+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
000003	.0	.0	17.0	63.0	17.8	2.2	.0	16.7	100.0	135
000009	.0	3.3	14.0	62.2	18.5	2.1	.0	16.4	100.0	336
120015	.0	2.4	18.0	58.7	17.4	3.6	.0	16.5	100.0	167
120021	.0	1.2	13.9	59.4	19.3	1.2	.0	17.4	100.0	0
TOT	.0	18	135	541	176	19	.0	16.7		889
PCT	.0	2.0	15.2	60.9	19.8	2.1	.0	100.0		

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL CBS	MEAN CLOUD COVER
N	.0	.0	.6	.0		7.0
NE	3.2	1.1	1.5	.0		3.0
E	13.8	9.3	11.9	.8		3.5
SE	12.1	10.0	24.8	7.0		4.8
S	.6	.0	1.9	.6		5.8
SW	.8	.0	.0	.0		2.0
W	.0	.0	.0	.0		.0
NW	.0	.0	.0	.0		.0
VAR	.0	.0	.0	.0		.0
CALM	.7	.0	.0	.0		.0
TOT CBS	36	24	48	10	118	4.2
TOT PCT	30.5	20.3	40.7	8.5	100.0	

[illegible]

CEILING (FEET)	VSBY (NM)							
	• DR ≥10	• DR ≥8	• DR ≥2	• DR ≥1	• DR ≥1/2	• DR ≥1/4	• DR ≥50YD	• DR ≥0
• DR ≥6000	.0	.0	.0	.0	.0	.0	.0	.0
• DR ≥5000	.8	.8	.8	.8	.8	.8	.8	.8
• DR ≥3500	2.5	5.1	5.1	5.1	5.1	5.1	5.1	5.1
• DR ≥2000	15.3	12.7	15.3	15.3	15.3	15.3	15.3	15.3
• DR ≥1000	18.3	21.2	23.7	23.7	23.7	23.7	23.7	23.7
• DR ≥600	19.5	25.4	28.0	28.0	28.0	28.0	28.0	28.0
• DR ≥300	21.2	27.1	29.7	29.7	29.7	29.7	29.7	29.7
• DR ≥150	21.2	28.0	30.5	30.5	30.5	30.5	30.5	30.5
• DR ≥ 0	21.2	28.0	30.5	30.5	30.5	30.5	30.5	30.5
TOTAL	25	33	36	36	36	36	36	36

PCT FREQ NH <5/81 69.5

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
3.1	14.1	17.2	19.5	16.4	10.9	10.2	5.5	3.1	.0	128

PERIOD: (PRIMARY) 1063-1971  
(OVER-ALL) 1854-1971

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AREA 0002 CHRISTMAS ISLAND  
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.5	.5	1.0	.0	.0	.0	.0	.0	2.1	2.1
	TOT %	.0	.0	.5	.5	1.0	.0	.0	.0	.0	.0	2.1	2.1
5<10	PCP	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	1.4	1.4
	NO PCP	.0	.0	5.0	3.8	.5	.0	.0	.0	.0	.0	10.3	10.3
	TOT %	.0	.0	6.0	5.2	.5	.0	.0	.0	.0	.0	11.7	11.7
10+	PCP	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.7	.7
	NO PCP	.5	5.3	29.5	48.6	1.0	.7	.0	.0	.0	.0	85.5	85.5
	TOT %	.5	5.3	29.5	49.1	1.0	.7	.0	.0	.0	.0	86.2	86.2
TOT OBS													145
TOT PCT		.5	5.3	36.0	54.8	2.6	.7	.0	.0	.0	.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.5	.5	.9	.0	.0	.0	.0	.0	1.9	1.9
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.5	.5	.9	.0	.0	.0	.0	.0	1.9	1.9
5<10	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	1.3	1.3
	11-21	.0	.0	3.9	5.6	.5	.0	.0	.0	.0	.0	10.0	10.0
	22+	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	1.3	1.3
	TOT %	.0	.0	6.4	5.6	.5	.0	.0	.0	.0	.0	12.5	12.5
10+	0-3	.0	.6	.6	.0	.0	.0	.0	.0	.0	.0	1.3	1.3
	4-10	.5	3.4	10.9	9.1	.5	.0	.0	.0	.0	.0	24.4	24.4
	11-21	.0	1.7	19.8	32.6	.5	.6	.0	.0	.0	.0	56.3	56.3
	22+	.0	.0	.0	3.8	.0	.0	.0	.0	.0	.0	3.8	3.8
	TOT %	.5	5.8	31.4	45.4	.9	.6	.0	.0	.0	.0	85.6	85.6
TOT OBS													160
TOT PCT		.5	5.8	38.3	52.5	2.3	.6	.0	.0	.0	.0	100.0	

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PERIOD: (PRIMARY) 1863-1971  
(OVER-ALL) 1854-1971AREA 0002 CHRISTMAS ISLAND  
10.05 105.3E

TABLE 10

PERCENT FREQUENCY OF CILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	3.1	3.1	3.1	3.1	12.5	3.1	3.1	.0	.0	31.3	68.8	42
06009	.0	.0	2.6	2.6	15.8	2.6	7.9	.0	.0	.0	31.6	68.4	38
12015	.0	.0	.0	3.6	7.1	17.9	3.6	.0	.0	.0	32.1	67.9	28
18021	.0	.0	.0	7.1	3.6	7.1	.0	.0	.0	.0	17.9	82.1	28
TOT	0	1	2	5	10	12	5	1	0	0	36	90	126
PCT	.0	.8	1.6	4.0	7.9	9.5	4.0	.8	.0	.0	28.6	71.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<3	3<10	10+	TOTAL OBS
00003	.0	.0	.0	.0	10.3	89.7	30
06009	.0	.0	.0	.0	16.0	84.0	50
12015	.0	.0	.0	5.4	8.1	86.5	37
18021	.0	.0	.0	2.9	14.7	82.4	34
TOT	0	0	0	3	20	137	160
PCT	.0	.0	.0	1.9	12.5	85.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	6.7	10.0	23.3	66.7	30
06009	.0	2.8	5.6	27.8	66.7	36
12015	.0	.0	10.7	21.4	67.9	28
18021	.0	.0	12.5	8.3	79.2	24
TOT	0	3	11	25	82	118
PCT	.0	2.5	9.3	21.2	69.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.8	.0	1.7	.0	.0	3	2.5
80/84	.0	.0	.0	.0	5.9	24.4	11.8	4.2	55	46.2
75/79	.0	.0	.0	.0	1.7	17.6	23.5	5.0	57	47.9
70/74	.0	.0	.0	.0	.0	2.5	.0	.8	4	3.4
TOTAL	0	0	0	1	9	55	42	12	119	100.0
PCT	.0	.0	.0	.8	7.6	46.2	35.3	10.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	2.3	.2	.0	.0	.0	.0	.0	.0
.0	2.5	18.9	22.9	1.9	.0	.0	.0	.0	.0
.6	3.2	16.6	23.4	1.3	.8	.0	.0	.0	.0
.0	.0	.0	3.4	.0	.0	.0	.0	.0	.0
.6	5.7	37.8	51.9	3.2	.0	.0	.0	.0	.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	84	83	82	79	77	75	74	79.0	131
06009	88	86	84	80	77	74	71	80.4	324
12015	90	83	82	79	76	73	70	79.1	161
18021	83	82	81	79	76	74	73	78.7	240
TOT	90	85	83	79	76	74	70	79.5	856

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	.0	.0	35.5	45.2	19.4	82	31
06009	.0	2.9	14.3	66.6	11.4	2.9	75	35		
12015	.0	.0	11.1	33.3	44.4	11.1	80	27		
18021	.0	.0	3.8	42.3	46.2	7.7	80	26		
TOT	0	1	9	35	42	12	79	119		

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PERIOD: (PRIMARY) 1863-1971  
(OVER-ALL) 1854-1991AREA 0002 CHRISTMAS ISLAND  
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TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	NO FOG
9/10	.0	.0	.8	.0	.0	.8	2	.0	1.7
4	.0	.0	.0	.0	.0	.0	1	.0	.8
3	.0	.0	.8	.0	.0	.0	2	.0	1.7
2	.0	.0	3.4	.8	1.7	.0	7	.0	5.9
1	.0	.0	5.9	7.6	.0	.0	16	.0	13.6
0	.0	.0	10.1	10.2	.0	.0	31	2.5	23.7
-1	.0	.0	10.1	.8	.0	.0	20	.8	16.1
-2	.0	1.7	4.2	7.6	.0	.0	16	.0	13.6
-3	.8	1.7	6.8	.8	.0	.0	12	.0	10.2
-4	.8	.0	2.5	.8	.0	.0	5	.0	4.2
-5	.0	.8	3.4	.0	.0	.0	5	.0	4.2
-6	.0	.8	.0	.0	.0	.0	1	.0	.8
TOTAL	2		71		3		118	4	114
PCT	1.7	5.1	60.2	29.7	2.5	.8	100.0	3.4	96.6

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	M						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	2.6	1.0	.0	.0	.0	2.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	1.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.6	.0	.0	.0	2.6
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	2.6	3.6	.0	.0	.0	6.1

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	14.3	.0	.0	.0	.0	14.3	.0	7.7	2.0	.0	.0	.0	9.7
5-6	.0	.0	6.6	.0	.0	.0	6.6	.0	.0	10.7	.0	.0	.0	11.2
7	.0	.0	13.8	.0	.0	.0	13.8	.0	.0	12.2	.0	.0	.0	14.3
8-9	.0	.0	2.0	.0	.0	.0	2.0	.0	.0	6.6	.0	.0	.0	6.6
10-11	.0	.0	.0	2.0	.0	.0	2.0	.0	.0	4.1	.0	.0	.0	6.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	2.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	15.8	22.4	2.0	.0	.0	40.3	.0	8.2	35.7	6.1	.0	.0	50.0

PERIOD: (OVER-ALL) 1963-1971

JULY

TABLE 18 (CONT)

AREA 0002 CHRISTMAS ISLAND  
10.05 105.3E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	1.5	.0	.0	.0	1.5	.0	.0	2.0	.0	.0	.0	2.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	24.5	2.0	.0	.0	.0	26.5	.0
3-4	.0	.0	20.4	.0	.0	.0	22.4	.0
5-6	.0	.0	28.6	2.0	.0	.0	30.6	.0
7	.0	.0	10.2	.0	.0	.0	10.2	.0
8-9	.0	.0	4.1	4.1	.0	.0	8.2	.0
10-11	.0	.0	.0	2.0	.0	.0	2.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	26.5	65.3	8.2	.0	.0	100.0	.0

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
<6	.0	4.2	10.4	4.2	3.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21	4
6-7	.0	1.0	7.3	15.5	14.6	3.1	2.1	2.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	44	6
8-9	.0	.0	1.0	10.4	4.2	3.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18	6
10-11	.0	.0	1.0	1.0	2.1	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	6
12-13	.0	.0	.0	.0	2.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	7
>13	.0	.0	.0	1.0	2.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	6
INDEX	.0	2.1	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	3
TOTAL	.0	7	19	32	27	7	2	2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	96	5
PCT	.0	7.3	19.8	33.3	28.1	7.3	2.1	2.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1802-1969  
(OVER-ALL) 1854-1969

AUGUST

AREA 0002 CHRISTMAS ISLAND  
10.05 105.3E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	1.7	.0	.0	.0	.0	.0	.0	1.7	1.3	.0	1.7	.0	.0	.0	95.3
SE	1.2	.3	.0	.0	.0	.0	.0	1.5	5.0	.0	1.2	.0	.0	.0	92.4
S	.0	25.0	.0	.0	.0	.0	.0	25.0	.0	.0	.0	.0	.0	.0	75.0
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	.7	.0	.0	.0	.0	.0	2.0	3.3	.0	1.3	.0	.0	.0	93.4
TOT OBS:	192														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
00003	.0	.0	.0	.0	.0	.0	.0	.0	2.7	.0	.0	.0	.0	.0	97.3
06009	3.8	.0	.0	.0	.0	.0	.0	3.8	1.9	.0	1.9	.0	.0	.0	92.3
12015	.0	3.0	.0	.0	.0	.0	.0	3.0	3.0	.0	3.0	.0	.0	.0	90.9
18021	.0	.0	.0	.0	.0	.0	.0	.0	6.5	.0	.0	.0	.0	.0	93.5
TOT PCT TOT OBS:	1.3 193	.7	.0	.0	.0	.0	.0	2.0	3.3	.0	1.3	.0	.0	.0	93.5

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.0	.0	.3	.0	.0	.0		.3	16.0		.4	.0	.4	.0	.0	.0	.0	.8
NE	.0	1.6	2.8	.9	.0	.0		5.2	14.2		5.2	.0	4.1	6.6	5.5	.0	6.5	4.8
E	.2	6.4	37.7	13.0	.6	.0		57.9	17.3		57.6	43.8	55.6	63.7	58.7	30.0	55.2	60.8
SE	.0	3.6	29.7	5.2	.5	.0		32.9	16.8		34.1	36.3	36.1	27.0	31.8	70.0	32.6	30.0
S	.2	.3	1.5	.6	.0	.0		2.5	15.0		1.9	.0	2.9	1.3	2.2	.0	3.7	2.8
SW	.2	.1	.0	.0	.0	.0		.3	3.4		.0	.0	.4	.4	.3	.0	.4	.0
W	.1	.1	.0	.0	.0	.0		.2	4.0		.7	.0	.0	.0	.0	.0	.0	.4
NW	.2	.1	.0	.0	.0	.0		.3	3.2		.0	.0	.4	.0	.0	.0	.7	.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	.4							.4	.0		.0	.0	.0	.9	1.4	.0	.7	.0
TOT OBS	12	108	591	176	10	0	897		16.7		134	4	236	115	146	5	134	125
TOT PCT	1.3	12.0	65.9	19.6	1.1	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					05 09	12 15	18 21	
N	.0	.1	.2	.0	.0		.3	16.0		.3	.0	.4	
NE	.4	3.1	1.7	.1	.0		5.2	14.2	5.1	4.5	5.3	5.7	
E	1.3	19.5	35.3	1.7	.2		57.9	17.3	57.2	58.2	57.8	57.9	
SE	.6	13.6	17.8	.8	.1		32.9	16.8	34.8	33.2	33.1	31.4	
S	.3	1.1	1.1	.0	.0		2.5	15.0	1.8	2.4	2.2	3.3	
SW	.2	.1	.0	.0	.0		.3	3.4	.0	.4	.3	.2	
W	.2	.0	.0	.0	.0		.2	4.0	.7	.0	.0	.2	
NW	.3	.0	.0	.0	.0		.3	3.2	.0	.3	.0	.4	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	.4						.4	.0	.0	.3	1.3	.4	
TOT OBS	32	337	503	23	2	897		16.7	138	349	151	259	
TOT PCT	3.6	37.6	56.1	2.6	.2		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1862-1969  
(OVER-ALL) 1954-1969

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
06003	.0	.0	17.4	65.0	18.8	.7	.0	16.3	100.0	138
06009	.3	1.1	9.5	66.5	21.2	1.4	.0	17.0	100.0	349
12015	1.3	.0	16.6	64.9	16.6	.7	.0	16.1	100.0	151
18021	.4	1.5	10.0	67.2	19.7	1.2	.0	16.8	100.0	259
TOT	.4	.8	10.8	591	176	10	.0	16.7		897
PCT	.4	.9	12.0	65.9	19.6	1.1	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 6	TOTAL	MEAN
				ORSCD	CBS	CLOUD COVER
N	.0	.0	.0	.0		.0
NE	.5	1.2	.5	.0		4.0
E	13.8	9.7	10.9	2.9		3.7
SE	9.0	19.2	26.0	4.9		4.6
S	.0	.0	1.5	.0		6.5
SW	.0	.0	.0	.0		.0
W	.0	.0	.0	.0		.0
NW	.0	.0	.0	.0		.0
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	.0	.0		.0
TOT OBS	24	31	40	8	103	4.2
TOT PCT	23.3	30.1	38.8	7.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NM <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2
E	.0	.0	.0	1.5	4.4	1.9	.0	.0	.0	.0	.0	29.6
SE	.0	.0	.0	5.3	10.4	6.8	.0	.0	.0	.0	.0	36.4
S	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.7
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT OBS	24	31	40	8	16	9	0	0	0	0	71	103
TOT PCT	.0	.0	.0	6.8	15.5	8.7	.0	.0	.0	.0	68.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)			VSBY (NM)			VSBY (NM)			VSBY (NM)		
	>10	>5	>2	>1	>1/2	>1/4	>30YD	>30				
>6500	.0	.0	.0	.0	.0	.0	.0	.0				
>5000	.0	.0	.0	.0	.0	.0	.0	.0				
>3500	.0	.0	.0	.0	.0	.0	.0	.0				
>2000	6.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7				
>1000	21.2	24.0	24.0	24.0	24.0	24.0	24.0	24.0				
>600	24.0	29.8	30.8	30.8	30.8	30.8	30.8	30.8				
>300	24.0	29.8	30.8	30.8	30.8	30.8	30.8	30.8				
>150	24.0	29.8	30.8	30.8	30.8	30.8	30.8	30.8				
>0	24.0	29.8	30.8	30.8	30.8	30.8	30.8	30.8				
TOTAL	25	31	32	32	32	32	32	32				

TOTAL NUMBER OF OBS: 104

PCT FREQ NM <5/8: 69.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	2.6	14.8	19.1	14.8	19.1	8.7	7.8	8.7	4.3	.0	119

PERIOD: (PRIMARY) 1862-1969  
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.0	.0	.0	.2	.5	.0	.0	.0	.0	.0	.7	.7
	NO PCP	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.7	.7
	TOT %	.0	.0	.0	.8	.5	.0	.0	.0	.0	.0	1.3	1.3
5<10	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	2.3	10.9	.0	.0	.0	.0	.0	.0	13.2	13.2
	TOT %	.0	.0	2.3	10.9	.0	.0	.0	.0	.0	.0	13.2	13.2
10+	PCP	.0	.0	.7	.7	.0	.0	.0	.0	.0	.0	1.3	1.3
	NO PCP	.0	3.6	35.4	43.8	1.5	.0	.0	.0	.0	.0	84.2	84.2
	TOT %	.0	3.6	36.0	44.4	1.5	.0	.0	.0	.0	.0	85.5	85.5
TOT OBS													152
TOT PCT													.0 3.6 36.3 46.1 2.0 .0 .0 .0 .0 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.8	.5	.0	.0	.0	.0	.0	1.3	1.3
	22+	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.6	.6
	TOT %	.0	.0	.0	1.4	.5	.0	.0	.0	.0	.0	1.9	1.9
5<10	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	1.9	1.9
	11-21	.0	.0	1.7	8.3	.0	.0	.0	.0	.0	.0	10.1	10.1
	22+	.0	.0	.5	.2	.0	.0	.0	.0	.0	.0	.6	.6
	TOT %	.0	.0	2.2	10.4	.0	.0	.0	.0	.0	.0	12.6	12.6
10+	0-3	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.6	.6
	4-10	.0	1.6	13.7	7.5	.5	.0	.0	.0	.0	.0	23.3	23.3
	11-21	.0	1.7	21.5	34.9	.9	.0	.0	.0	.0	.0	39.1	39.1
	22+	.0	.2	1.1	1.3	.0	.0	.0	.0	.0	.0	2.5	2.5
	TOT %	.0	3.5	36.9	43.7	1.4	.0	.0	.0	.0	.0	65.5	65.5
TOT OBS													159
TOT PCT													.0 3.5 39.2 55.5 1.9 .0 .0 .0 .0 100.0



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PERIOD: (PRIMARY) 1862-1969  
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 289	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00Z03	.0	.0	.0	6.5	16.1	3.2	.0	.0	.0	.0	25.8	74.2	31
06Z09	.0	.0	.0	7.9	13.2	10.5	.0	.0	.0	.0	31.6	68.4	38
12Z15	.0	.0	.0	8.0	12.0	8.0	.0	.0	.0	.0	28.0	72.0	25
18Z21	.0	.0	.0	.0	15.8	10.5	.0	.0	.0	.0	26.3	73.7	19
TOT	0	0	0	7	16	9	0	0	0	0	32	81	113
PCT	.0	.0	.0	6.2	14.2	8.0	.0	.0	.0	.0	28.3	71.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00Z03	.0	.0	.0	.0	5.3	94.7	38
06Z09	.0	.0	.0	.0	13.0	87.0	54
12Z15	.0	.0	.0	5.9	11.8	82.4	34
18Z21	.0	.0	.0	2.9	20.6	76.5	34
TOT	0	0	0	3	20	137	160
PCT	.0	.0	.0	1.9	12.5	85.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET) NH >4/8) BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00Z03	.0	.0	6.7	20.0	73.3	30
06Z09	.0	.0	8.1	24.3	67.6	37
12Z15	.0	.0	9.5	23.8	66.7	21
18Z21	.0	.0	.0	31.3	68.8	16
TOT	0	0	7	25	72	104
PCT	.0	.0	6.7	24.0	68.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.9	.0	.0	.0	1	.9
80/84	.0	.0	.0	.0	2.8	14.3	5.3	.9	30	27.5
75/79	.0	.0	.0	.0	2.8	38.5	25.7	3.7	77	70.6
70/74	.0	.0	.0	.0	.0	.0	.9	.0	1	.9
TOTAL	0	0	0	0	7	62	35	5	109	100.0
PCT	.0	.0	.0	.0	6.4	56.9	32.1	4.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.9	.0	.0	.0	.0	.0	.0
.0	.2	13.1	14.2	.0	.0	.0	.0	.0	.0
.0	2.1	24.5	42.7	1.4	.0	.0	.0	.0	.0
.0	.0	.5	.5	.0	.0	.0	.0	.0	.0
.0	2.3	38.1	58.3	1.4	.0	.0	.0	.0	.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00Z03	85	83	81	78	75	73	73	78.2	137
06Z09	86	84	83	79	76	75	72	79.4	338
12Z15	83	81	81	78	75	73	72	77.9	145
18Z21	83	81	80	78	75	74	69	77.5	246
TOT	86	84	82	78	75	73	69	78.4	866

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00Z03	.0	.0	3.2	51.6	43.2	.0	79	31
06Z09	.0	.0	13.9	63.9	19.4	2.8	77	36
12Z15	.0	.0	.0	63.6	22.7	13.6	79	22
18Z21	.0	.0	4.8	42.9	47.6	4.8	81	21
TOT	0	0	7	62	38	5	79	110

PERIOD: (PRIMARY) 1862-1969  
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TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	TOT	N FOG	NU FOG
7/8	.0	.0	.0	.0	.8	1	.0	.8
5	.0	.0	.0	1.5	.0	2	.0	1.5
4	.0	.0	.0	1.5	.0	2	.0	1.5
3	.0	.0	.8	1.5	.0	3	.0	2.3
2	.0	.0	4.8	5.3	.0	13	.8	9.2
1	.0	.0	13.7	9.1	.0	22	.0	16.8
0	.0	.8	22.1	9.3	.0	37	.0	28.2
-1	.0	.8	15.3	.0	.0	21	.0	16.0
-2	.8	3.1	6.1	.0	.0	13	.0	9.9
-3	.0	.0	5.3	.0	.0	7	.0	5.3
-4	.8	1.5	3.8	.0	.0	8	.0	6.1
-5	.0	.8	.0	.0	.0	1	.0	.8
-9/-10	.0	.0	.8	.0	.0	1	.0	.8
TOTAL	2	9	95	24	1	131	1	130
PCT	1.5	5.9	72.5	18.3	.8	100.0	.8	99.2

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.4	.4	.4	.0	.0	1.2

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	6.0	9.7	1.7	.0	.0	20.6	.0	1.6	1.6	.0	.0	.0	3.2
5-6	.0	.0	9.7	1.7	.0	.0	10.2	.0	6.3	12.9	.0	.0	.0	19.4
7	.0	.0	10.5	.0	.0	.0	2.4	.0	1.6	14.1	1.5	.0	.0	17.3
8-9	.0	.0	1.2	1.2	.0	.0	.0	.0	.0	10.1	2.0	.0	.0	12.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.8	.0	.0	.0	4.8
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	15.7	21.4	2.4	.0	.0	39.5	.0	9.7	42.5	3.6	.0	.0	26.9

PERIOD: (OVER-ALL) 1963-1969

BLANK

AREA 0002 CHRISTMAS ISLAND  
10.05 105.3E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	1.2	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	1.2	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	2.4	.0	.0	.0	2.4	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	1.0	.0	.0	.0	.0	.0
3-4	.0	10.1	24.2	1.6	.0	.0	35.9	35.9
5-6	.0	1.6	25.8	1.6	.0	.0	29.0	64.9
7	.0	.0	11.3	3.2	.0	.0	14.5	79.4
8-9	.0	.0	4.8	.0	.0	.0	4.8	84.2
10-11	.0	.0	.0	.0	.0	.0	.0	84.2
12	.0	.0	.0	.0	.0	.0	.0	84.2
13-16	.0	.0	.0	.0	.0	.0	.0	84.2
17-19	.0	.0	.0	.0	.0	.0	.0	84.2
20-22	.0	.0	.0	.0	.0	.0	.0	84.2
23-25	.0	.0	.0	.0	.0	.0	.0	84.2
26-32	.0	.0	.0	.0	.0	.0	.0	84.2
33-40	.0	.0	.0	.0	.0	.0	.0	84.2
41-48	.0	.0	.0	.0	.0	.0	.0	84.2
49-60	.0	.0	.0	.0	.0	.0	.0	84.2
61-70	.0	.0	.0	.0	.0	.0	.0	84.2
71-86	.0	.0	.0	.0	.0	.0	.0	84.2
87+	.0	.0	.0	.0	.0	.0	.0	84.2
TOT PCT	.0	25.8	67.7	4.5	.0	.0	100.0	100.0

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	1.0	11.8	14.7	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	30	4
6-7	.0	.0	6.9	12.7	3.9	3.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	29	5
8-9	.0	1.0	2.0	8.8	1.0	4.9	6.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25	7
10-11	.0	.0	.0	2.0	2.9	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	7
12-13	.0	.0	.0	.0	1.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	9
>13	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	8
INDET	.0	1.0	.0	3.9	1.0	1.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	6
TOTAL	.0	3	21	43	12	11	10	2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	102	6
PCT	.0	2.9	20.6	42.2	11.8	10.8	9.8	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1860-1971  
(OVER-ALL) 1854-1971

AREA 0002 CHRISTMAS ISLAND  
10.05 105.2E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DR7L	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	2.6	.0	.0	.0	.0	.0	2.6	3.9	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	3.7	.0	.0	.0	.0	.0	93.5
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	96.3
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.7	.0	.0	.0	.0	.0	.7	3.6	.0	.0	.0	.0	.0	95.7
TOT OBS:	140														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DR7L	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.0	3.4	.0	.0	.0	.0	.0	3.4	3.4	.0	.0	.0	.0	.0	93.1
05000	.0	.0	.0	.0	.0	.0	.0	.0	4.8	.0	.0	.0	.0	.0	95.2
17015	.0	.0	.0	.0	.0	.0	.0	.0	3.0	.0	.0	.0	.0	.0	97.0
18021	.0	.0	.0	.0	.0	.0	.0	.0	2.8	.0	.0	.0	.0	.0	97.2
TOT PCT	.0	.7	.0	.0	.0	.0	.0	.7	3.4	.0	.0	.0	.0	.0	95.7
TOT OBS:	140														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.2	.1	.2	.0	.0	.0			.4	7.7	.4	.0	1.1	.5	.0	.0	.0	.4
NE	.1	.9	1.9	.1	.0	.0			2.9	12.7	3.0	.0	4.0	2.8	3.0	.0	1.7	2.3
E	.2	7.4	34.6	7.7	.3	.0			50.2	16.4	50.6	.0	51.0	57.5	46.5	75.0	46.3	51.4
SE	.0	6.6	29.8	5.1	.3	.0			41.9	16.0	42.8	.0	39.9	34.0	45.6	25.0	46.3	41.3
S	.0	.8	1.8	.1	.1	.0			2.7	13.6	2.6	.0	1.5	3.3	2.4	.0	3.7	3.5
SW	.0	.1	.3	.0	.0	.0			.3	14.8	.0	.0	.6	.5	.6	.0	.0	.0
W	.2	.3	.1	.0	.0	.0			.7	5.1	.0	.0	.8	.5	.9	.0	1.3	.4
NW	.1	.4	.2	.0	.0	.0			.7	7.7	.4	.0	.6	.9	.9	.0	.7	.8
VAR	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.1								.1	.0	.0	.0	.4	.0	.0	.0	.0	.0
TOT OBS	10	151	632	119	6	0	918		15.8		132	0	236	106	165	1	149	129
TOT PCT	1.1	16.4	68.8	13.0	.7	.0		100.0			100.0	.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	03	06	12
N	.3	.1	.1	.0	.0			.4	7.7	.4	.9	.0
NE	.6	1.3	1.0	.1	.0			2.9	12.7	3.0	3.7	3.0
E	2.1	17.9	28.6	1.6	.0			50.2	16.4	50.6	53.0	46.7
SE	1.3	18.3	21.4	.9	.0			41.9	16.0	42.8	38.1	45.3
S	.1	2.0	.6	.1	.0			2.7	13.6	2.6	2.0	2.4
SW	.0	.2	.2	.0	.0			.3	14.8	.0	.6	.6
W	.5	.2	.0	.0	.0			.7	5.1	.0	.7	.9
NW	.5	.1	.1	.0	.0			.7	7.7	.4	.7	.9
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0
CALM	.1							.1	.0	.0	.3	.0
TOT OBS	50	367	477	24	0	918		15.8		132	342	166
TOT PCT	5.4	40.0	52.0	2.6	.0		100.0		100.0	100.0	100.0	100.0

SEPTEMBER

PERIOD: (PRIMARY) 1860-1971  
(OVER-ALL) 1854-1971

AREA 0002 CHRISTMAS ISLAND  
10.05 105.2E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	.0	.0	18.2	68.2	12.9	.8	.0	16.0	100.0	132
06009	.3	.9	15.8	67.5	14.9	.6	.0	15.9	100.0	342
12015	.0	.6	19.9	69.9	9.0	.6	.0	15.1	100.0	164
18021	.0	1.8	14.4	70.1	12.9	.7	.0	16.0	100.0	278
TOT	1	9	151	632	119	6	0	15.8		918
PCT	.1	1.0	16.4	68.8	13.0	.7	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-10	TOTAL CLOUD OBS	MEAN CLOUD COVER
N	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0
E	0.1	10.1	11.1	1.9	4.4	4.4
SE	16.6	20.6	24.6	4.8	4.7	4.7
S	.0	2.1	1.3	.0	4.0	4.0
SW	.0	.0	.0	.0	.0	.0
W	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0
TOT OBS	28	39	44	8	119	4.3
TOT PCT	23.5	32.8	37.0	6.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	298	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.8	2.9	2.5	1.3	1.7	.8	.0	.0	.0	19.1
SE	.0	.0	.0	7.1	5.9	6.3	2.1	.0	.0	.0	.0	45.2
S	.0	.0	.0	.0	.0	.0	1.3	.0	.0	.0	.0	2.9
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT OBS	7	1	12	10	9	6	1	0	0	0	0	119
TOT PCT	.0	.0	.8	10.1	8.4	7.6	5.0	.8	.0	.0	.0	67.2

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NH) = OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.0	.0	.0	.0	.0	.0	.0	.0
= OR >5000	.0	.8	.8	.8	.8	.8	.8	.8
= OR >3500	4.2	5.9	5.9	5.9	5.9	5.9	5.9	5.9
= OR >2000	8.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
= OR >1000	13.4	21.8	21.8	21.8	21.8	21.8	21.8	21.8
= OR >400	20.2	31.9	31.9	31.9	31.9	31.9	31.9	31.9
= OR >300	21.0	32.8	32.8	32.8	32.8	32.8	32.8	32.8
= OR >150	21.0	32.8	32.8	32.8	32.8	32.8	32.8	32.8
= OR >0	21.0	32.8	32.8	32.8	32.8	32.8	32.8	32.8
TOTAL	25	39	39	39	39	39	39	39

TOTAL NUMBER OF OBS: 119

PCT FREQ NH <5/8: 67.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
.8	10.4	23.2	17.6	14.4	9.6	15.7	6.4	7.4	.0	125	

PERIOD: (PRIMARY) 1860-1971  
(OVER-ALL) 1854-1971

SEPTEMBER

AREA 0002 CHRISTMAS ISLAND  
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT OBS												140
TOT PCT	.0	.0	27.3	67.9	4.8	.0	.0	.0	.0	.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT OBS													150
TOT PCT	.0	.0	28.8	66.7	4.5	.0	.0	.0	.0	.0	.0	100.0	

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PERIOD: (PRIMARY) 1960-1971  
(OVER-ALL) 1954-1971

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	400 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	7.1	10.7	3.6	3.6	.0	.0	.0	25.0	75.0	28
06009	.0	.0	2.8	13.9	2.8	6.3	5.6	.0	.0	.0	33.3	66.7	36
12015	.0	.0	.0	13.3	13.3	6.7	3.3	3.3	.0	.0	40.0	60.0	30
18021	.0	.0	.0	3.6	7.1	10.7	7.1	.0	.0	.0	28.6	71.4	28
TOT	0	0	1	12	10	9	6	1	0	0	39	83	122
PCT	.0	.0	.8	9.8	8.2	7.4	4.9	.8	.0	.0	32.0	68.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	.0	10.0	90.0	30
06009	.0	.0	.0	.0	13.3	86.7	45
12015	.0	.0	.0	.0	20.6	79.4	34
18021	.0	.0	.0	.0	17.1	82.9	41
TOT	0	0	0	0	23	127	150
PCT	.0	.0	.0	.0	15.3	84.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ ANDS+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	7.7	19.2	73.1	26
06009	.0	2.8	16.7	16.7	66.7	36
12015	.0	.0	13.8	27.6	58.6	29
18021	.0	.0	3.6	25.0	71.4	28
TOT	0	1	13	26	80	119
PCT	.0	.8	10.9	21.8	67.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.8	1.7	.0	.0	3	2.5
80/84	.0	.0	.0	.0	3.3	10.0	11.7	.8	31	25.8
75/79	.0	.0	.0	.0	2.5	30.8	31.7	6.7	86	71.7
TOTAL	0	0	0	0	8	51	52	9	120	100.0
PCT	.0	.0	.0	.0	6.7	42.5	43.3	7.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.8	1.7	.0	.0	.0	.0	.0	.0
.0	.0	10.2	15.0	.0	.0	.0	.0	.0	.0
.0	.0	16.7	50.8	4.2	.0	.0	.0	.0	.0
.0	.0	27.7	68.1	4.2	.0	.0	.0	.0	.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	83	82	81	78	76	75	74	78.4	127
06009	90	88	84	80	77	74	71	80.0	329
12015	86	85	82	79	75	74	72	78.7	157
18021	80	83	81	78	75	74	72	78.0	261
TOT	90	86	83	79	76	74	71	78.9	874

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	4.0	40.0	48.0	8.0	80	25
06009	.0	.0	20.6	50.0	29.4	.0	76	34
12015	.0	.0	.0	34.4	50.0	15.6	82	37
18021	.0	.0	.0	44.8	48.3	6.9	80	29
TOT	0	0	8	51	52	9	79	120

PERIOD: (PRIMARY) 1860-1971  
(OVER-ALL) 1854-1971

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TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	TOT	N FOG	NO FOG
6	.0	.0	.0	.9	1	.0	.9
5	.0	.9	.9	.0	2	.0	1.7
4	.0	2.6	.0	.9	4	.0	3.4
3	.0	1.7	.9	.9	4	.0	3.4
2	.0	2.6	5.1	.0	9	.0	7.7
1	.9	15.4	1.7	.0	21	.0	17.0
0	2.6	23.9	4.3	.0	36	.0	30.8
-1	1.7	12.8	.0	.0	17	.0	14.5
-2	1.7	7.7	.0	.0	11	.0	9.4
-3	2.6	4.3	.0	.0	8	.0	6.8
-4	.0	1.7	.0	.0	2	.0	1.7
-5	.0	.9	.0	.0	1	.0	.9
-7/-8	.0	.9	.0	.0	1	.0	.9
TOTAL	11	88	15	3	117	0	117
PCT	9.4	75.2	12.8	2.6	100.0		100.0

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	4.9	2.2	.0	.0	.0	7.1	.0	7.1	3.7	.0	.0	.0	10.8
3-4	.0	5.6	9.7	.0	.0	.0	15.3	.0	1.9	21.6	3.0	.0	.0	26.5
5-6	.0	.0	11.2	.0	.0	.0	11.2	.0	.0	9.7	3.0	.0	.0	12.7
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.9	.0	.0	.0	11.9
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	10.4	23.1	.0	.0	.0	33.6	.0	9.0	47.0	6.0	.0	.0	61.9



PERIOD: (OVER-ALL) 1963-1971

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	3.0	.0	.0	.0	3.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	1.5	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	4.5	.0	.0	.0	4.5	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	11.9	6.0	.0	.0	.0	17.9	.0
3-4	.0	7.5	34.3	9.0	.0	.0	44.8	.0
5-6	.0	.0	22.4	3.0	.0	.0	25.4	.0
7	.0	.0	11.9	.0	.0	.0	11.9	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	19.4	74.6	6.0	.0	.0	100.0	67

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-80	87+	TOTAL	MEAN HGT	
<6	.0	1.9	12.5	5.8	9.8	1.9	1.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	31	5
6-9	.0	.0	10.6	21.2	9.8	1.0	2.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	43	5
9-12	.0	.0	5.8	5.8	2.9	1.0	2.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	6
10-11	.0	.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	4
12-13	.0	.0	.0	1.0	1.9	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	7
>13	.0	.0	.0	.0	.0	1.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	12
INDET	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	5
TOTAL	.0	2	31	38	17	8	9	.0	1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	104	5
PCT	.0	1.9	29.8	36.3	16.3	5.8	8.7	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

OCTOBER

PERIOD: (PRIMARY) 1863-1971  
(OVER-ALL) 1854-1971AREA 0002 CHRISTMAS ISLAND  
10.05 105.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	ORZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	100.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	2.7	.0	.0	.0	.0	.0	97.8
SE	1.9	1.9	.0	.0	.0	.0	.0	3.8	2.1	.0	.0	.0	.0	.0	94.1
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	1.3	.0	.0	.0	.0	.0	2.6	2.6	.0	.0	.0	.0	.0	94.8
TOT OBS:	153														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	ORZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	2.6	.0	.0	.0	.0	.0	.0	2.6	2.6	.0	.0	.0	.0	.0	94.7
06009	.0	2.4	.0	.0	.0	.0	.0	2.4	.0	.0	.0	.0	.0	.0	97.6
12015	.0	2.7	.0	.0	.0	.0	.0	2.7	8.1	.0	.0	.0	.0	.0	89.2
18021	2.7	.0	.0	.0	.0	.0	.0	2.7	.0	.0	.0	.0	.0	.0	97.3
TOT PCT	1.3	1.3	.0	.0	.0	.0	.0	2.6	2.6	.0	.0	.0	.0	.0	94.8
TOT OBS:	154														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.2	1.2	.6	.0	.0	.0		2.0	8.5		1.4	.0	4.3	2.9	1.5	.0	.4	.4
NE	.6	1.5	.4	.2	.0	.0		2.6	8.4		3.4	.0	2.9	5.4	1.8	.0	1.1	1.5
E	.8	6.9	21.9	5.5	.1	.0		35.3	15.6		36.9	.0	36.1	37.9	32.5	25.0	34.2	35.0
SE	.6	9.6	32.1	6.7	.4	.0		49.4	15.6		47.1	100.0	47.3	43.3	51.2	64.3	56.6	50.0
S	.2	2.5	9.8	.6	.0	.0		6.8	13.0		7.8	.0	4.7	5.8	8.0	10.7	5.9	9.2
SW	.2	.5	.0	.0	.0	.0		.6	4.2		.7	.0	.9	.4	1.5	.0	.0	.0
W	.2	.4	.1	.2	.0	.0		.9	11.5		.3	.0	1.6	.8	.6	.0	.0	1.5
NW	.4	1.0	.2	.1	.0	.0		1.7	6.9		1.0	.0	1.8	3.3	1.8	.0	1.1	1.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	.8							.8	.0		1.4	.0	.4	.0	1.2	.0	.7	.8
TOT OBS	36	220	351	121	5	0	933		14.7		147	1	223	120	169	7	136	130
TOT PCT	3.9	23.6	39.1	13.0	.5	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	03	06	12
N	.7	1.2	.1	.0	.0			2.0	8.5		1.4	3.2	1.4	.4
NE	1.2	1.0	.4	.0	.0			2.6	8.4		3.4	3.8	1.7	1.3
E	3.1	12.8	18.3	1.0	.0			35.3	15.6		36.7	36.7	32.2	34.6
SE	2.8	21.6	23.5	1.4	.0			49.4	15.6		47.3	43.3	51.7	52.4
S	.7	3.9	2.2	.0	.0			6.8	13.0		7.8	5.1	8.1	7.5
SW	.6	.0	.0	.0	.0			.6	4.2		.7	.7	1.4	.0
W	.3	.3	.2	.1	.0			.9	11.5		.3	1.3	.6	.8
NW	1.1	.6	.0	.1	.0			1.7	6.9		1.0	2.3	1.7	1.3
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	.8							.8	.0		1.4	.3	1.1	.8
TOT OBS	105	387	417	24	0	933			14.7		148	343	176	266
TOT PCT	11.3	41.5	44.7	2.6	.0			100.0			100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1863-1971  
(OVER-ALL) 1854-1971

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AREA 0002 CHRISTMAS ISLAND  
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	1.4	4.7	23.6	54.7	15.5	.0	.0	14.3	100.0	148
06009	.3	4.1	22.4	60.9	11.4	.9	.0	14.7	100.0	343
12015	1.1	4.3	27.3	59.1	10.2	.0	.0	14.1	100.0	176
18021	.8	1.5	22.6	59.0	15.4	.8	.0	15.3	100.0	266
TOT	7	29	220	551	121	5	0	14.7		933
PCT	.8	3.1	23.6	59.1	13.0	.5	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.0	.0		.0
NE	.0	.2	.9	.2		6.0
E	6.4	6.6	8.7	.7		4.0
SE	17.2	21.2	21.5	5.7		4.0
S	2.8	4.0	1.9	.0		3.4
SW	.0	1.9	.0	.0		3.5
W	.0	.0	.0	.0		.0
NW	.0	.0	.0	.0		.0
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	.0	.0		.0
TOT OBS	28	36	35	7	106	4.0
TOT PCT	26.4	34.0	33.0	6.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NM <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	1.2
E	.0	.0	.0	.7	.7	.9	.0	.0	.0	.0	.0	20.0
SE	.0	.0	.0	3.1	4.7	2.8	.9	.0	.0	.0	.0	34.0
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.7
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.9
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT OBS	0	0	0	4	6	4	1	0	0	0	91	106
TOT PCT	.0	.0	.0	3.8	5.7	3.8	.9	.0	.0	.0	85.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (LM)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NM) = OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.0	.0	.0	.0	.0	.0	.0	.0
= OR >5000	.0	.0	.0	.0	.0	.0	.0	.0
= OR >3500	.9	.9	.9	.9	.9	.9	.9	.9
= OR >2000	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
= OR >1000	6.5	9.3	10.3	10.3	10.3	10.3	10.3	10.3
= OR >600	9.3	13.1	14.0	14.0	14.0	14.0	14.0	14.0
= OR >300	9.3	13.1	14.0	14.0	14.0	14.0	14.0	14.0
= OR >150	9.3	13.1	14.0	14.0	14.0	14.0	14.0	14.0
= OR > 0	9.3	13.1	14.0	14.0	14.0	14.0	14.0	14.0
TOTAL	10	14	15	15	15	15	15	15

TOTAL NUMBER OF OBS: 107

PCT FREQ NM <5/8: 86.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	UBSCD	TOTAL OBS
5.8	18.3	19.2	25.0	16.7	3.3	5.0	2.5	4.2	.0	120

PERIOD: (PRIMARY) 1863-1971  
(OVER-ALL) 1854-1971

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSRY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	
5<10	PCP	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	2.0	
	NO PCP	.7	.2	1.1	6.0	1.1	.0	.0	.0	.0	.0	9.2	
	TOT %	.7	.2	1.1	8.0	1.1	.0	.0	.0	.0	.0	11.1	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.8	21.1	60.1	4.9	1.9	.0	.0	.0	.0	88.2	
	TOT %	.0	.8	21.1	60.1	4.9	1.9	.0	.0	.0	.0	88.2	
TOT OBS													153
TOT PCT		.7	1.0	22.2	60.8	6.0	1.3	.0	.0	.0	.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSRY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5<10	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	3.9	.5	.0	.0	.0	.0	.0	4.4	
	11-21	.0	.2	.5	3.8	.6	.0	.0	.0	.0	.0	5.7	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	1.1	7.7	1.1	.0	.0	.0	.0	.0	10.7	
10+	0-3	.0	.0	1.7	1.4	.0	.0	.0	.0	.0	.0	3.8	
	4-10	.0	.8	14.3	23.6	2.8	.6	.0	.0	.0	.0	42.1	
	11-21	.0	.0	5.7	33.3	1.9	.0	.0	.0	.0	.0	40.9	
	22+	.0	.0	.8	1.1	.0	.0	.0	.0	.0	.0	1.9	
	TOT %	.0	.8	22.5	59.4	4.7	1.3	.0	.0	.0	.0	88.7	
TOT OBS													159
TOT PCT		.6	.9	23.6	67.8	5.8	1.3	.0	.0	.0	.0	100.0	

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PERIOD: (PRIMARY) 1863-1971  
(OVER-ALL) 1854-1971

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	140 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	2.9	5.9	5.9	.0	.0	.0	.0	14.7	85.3	34
06009	.0	.0	.0	3.6	3.6	3.6	.0	.0	.0	.0	10.7	89.3	28
12015	.0	.0	.0	.0	3.4	.0	3.4	.0	.0	.0	6.9	93.1	29
18021	.0	.0	.0	7.7	7.7	3.8	.0	.0	.0	.0	19.2	80.8	26
TOT	0	0	0	4	6	4	1	0	0	0	15	102	117
PCT	.0	.0	.0	3.4	5.1	3.4	.9	.0	.0	.0	12.8	87.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	2.6	7.7	89.7	39
06009	.0	.0	.0	.0	11.1	88.9	45
12015	.0	.0	.0	.0	13.5	86.5	37
18021	.0	.0	.0	.0	10.3	89.7	39
TOT	0	0	0	1	17	142	160
PCT	.0	.0	.0	.6	10.6	88.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET) NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	6.5	9.7	83.9	31
06009	.0	.0	3.6	7.1	89.3	28
12015	.0	.0	.0	8.0	92.0	29
18021	.0	.0	3.7	13.0	78.3	23
TOT	0	0	5	10	92	107
PCT	.0	.0	4.7	9.3	86.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	1.9	.9	.0	.0	3	2.8
80/84	.0	.0	.0	.0	2.8	16.7	9.3	1.9	33	30.6
75/79	.0	.0	.0	.0	1.9	17.6	41.7	5.6	72	66.7
TOTAL	0	0	0	0	7	38	55	8	108	100.0
PCT	.0	.0	.0	.0	6.5	35.2	50.9	7.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.9	1.9	.0	.0	.0	.0	.0	.0
.0	.0	7.6	20.6	2.3	.0	.0	.0	.0	.0
.0	1.2	14.8	44.4	6.3	.0	.0	.0	.0	.0
.0	1.2	23.4	66.9	8.6	.0	.0	.0	.0	.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	87	85	82	79	76	74	73	79.2	144
06009	89	86	84	80	77	75	66	80.4	335
12015	85	84	82	79	76	75	74	79.1	171
18021	85	83	81	78	76	73	69	78.2	253
TOT	89	85	83	79	76	73	66	79.4	903

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	34.4	50.0	15.6	82	32
06009	.0	.0	19.2	53.8	19.2	7.7	77	26
12015	.0	.0	7.1	25.0	67.9	.0	80	28
18021	.0	.0	4.3	26.1	65.2	4.3	82	23
TOT	0	0	8	38	55	6	80	109

PERIOD: (PRIMARY) 1863-1971  
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TEMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	WD FOG
9/10	.0	.0	.0	.0	.0	.8	.8	2	.0	1.6
5	.0	.0	.0	.0	.8	.0	.0	1	.0	.8
4	.0	.0	.0	.0	2.5	.8	.0	4	.0	3.3
3	.0	.0	.0	.0	1.6	.0	.0	2	.0	1.6
2	.0	.0	.0	4.1	7.4	.0	.0	14	.0	11.5
1	.0	.0	.0	9.9	4.1	.0	.0	17	.0	13.9
0	.0	.0	.0	13.9	4.9	.0	.0	23	.0	18.9
-1	.0	.0	.0	16.4	.0	.0	.0	20	.0	16.4
-2	.0	.0	2.5	9.8	2.5	.0	.0	18	.0	14.8
-3	.0	.0	.0	7.4	.0	.0	.0	9	.0	7.4
-4	.0	.8	.8	4.9	.0	.0	.0	8	.0	6.6
-5	.8	.0	.8	.8	.0	.0	.0	3	.0	2.5
-6	.0	.0	.8	.0	.0	.0	.0	1	.0	.8
TOTAL	1	1	8	82	24	2	4	122	0	122
PCT	.8	.8	4.9	67.7	23.4	1.6	.8	100.0		100.0

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.4
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	1.5	.0	.0	.0	.0	1.5
1-2	.0	3.7	1.5	.0	.0	.0	5.1	.0	13.2	7.7	.0	.0	.0	21.0
3-4	1.1	3.7	.0	.0	.0	.0	4.8	1.8	3.1	21.7	.0	.0	.0	28.7
5-6	.0	.0	3.3	.0	.0	.0	3.3	.0	2.9	9.6	.0	.0	.0	12.5
7	.0	.0	1.1	1.1	.0	.0	2.2	.0	.0	4.8	.4	.0	.0	5.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	.0	.0	.0	1.5
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	.0	.0	1.5
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	7.4	5.9	1.1	.0	.0	15.4	1.8	22.8	45.2	1.8	.0	.0	71.7

PERIOD: (OVER-ALL) 1963-1971

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	3.7	1.1	.0	.0	.0	4.8	1.5	.0	.0	.0	.0	.0	1.5
3-4	.0	1.5	3.3	.0	.0	.0	4.8	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	1.5	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.1	5.9	.0	.0	.0	11.0	1.9	.0	.0	.0	.0	.0	1.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	.0	1.5	.0	.0	.0	.0	1.5	
1-2	1.5	20.6	10.3	.0	.0	.0	32.4	
3-4	2.9	10.3	25.0	.0	.0	.0	38.2	
5-6	.0	2.9	14.7	.0	.0	.0	17.6	
7	.0	.0	5.0	1.5	.0	.0	7.4	
8-9	.0	.0	1.5	.0	.0	.0	1.5	
10-11	.0	.0	.0	1.5	.0	.0	1.5	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.4	35.3	57.4	2.9	.0	.0	100.0	68

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.9	12.6	22.3	7.8	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	47	3
6-7	.0	1.0	12.6	9.7	1.9	4.9	1.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	33	5
8-9	.0	1.0	5.8	1.0	1.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	5
10-11	.0	1.0	1.0	1.0	1.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	6
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	.0	2.9	1.9	.0	.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	4
TOTAL	2	19	45	20	5	7	4	1	0	0	0	0	0	0	0	0	0	0	0	103	
PCT	1.9	18.4	43.7	19.4	4.9	6.8	3.9	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.0	

PERIOD: (PRIMARY) 1862-1971  
(OVER-ALL) 1854-1971

NOVEMBER

AREA 0002 CHRISTMAS ISLAND  
10.05 104.9E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WNO DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	14.3	.0	.0	.0	.0	.0	.0	14.3	.0	.0	.0	.0	.0	.0	85.7
E	4.4	.0	.0	.0	.0	.0	.0	4.4	4.4	.0	.0	.0	.0	.0	91.2
SE	.4	3.0	.0	.0	.0	.0	.0	3.4	4.9	.0	.0	.0	.0	.0	91.7
S	4.5	.0	6.0	.0	.0	.0	.0	10.4	6.0	.0	.0	.0	.0	.0	83.3
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	40.0	.0	40.0	.0	.0	.0	.0	40.0	.0	.0	.0	.0	.0	.0	60.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	50.0	.0	.0	.0	.0	.0	.0	50.0	.0	.0	.0	.0	.0	.0	50.0
TOT PCT	3.6	1.8	1.8	.0	.0	.0	.0	6.3	4.5	.0	.0	.0	.0	.0	89.2
TOT OBS:	111														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.0	.0	.0	.0	.0	.0	.0	.0	10.3	.0	.0	.0	.0	.0	89.7
06009	2.4	2.4	2.4	.0	.0	.0	.0	7.3	4.9	.0	.0	.0	.0	.0	87.8
12015	3.8	3.8	.0	.0	.0	.0	.0	7.7	3.8	.0	.0	.0	.0	.0	88.5
18021	9.5	.0	4.8	.0	.0	.0	.0	9.5	.0	4.8	.0	.0	.0	.0	85.7
TOT PCT TOT OBS:	3.4 117	1.7	1.7	.0	.0	.0	.0	6.0	5.1	.9	.0	.0	.0	.0	88.0

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.3	1.0	.2	.3	.0	.0		1.8	9.5		.5	.0	2.5	2.7	2.3	.0	1.2	1.7
NE	.2	1.6	.2	.0	.0	.0		2.0	7.6		1.1	.0	2.8	2.7	.2	.0	4.1	1.7
E	1.0	4.3	13.6	2.2	.0	.0		21.0	14.3		24.7	37.5	23.9	17.0	20.2	.0	13.1	23.3
SE	.5	14.0	27.5	5.3	.0	.0		47.3	13.9		45.5	62.5	44.5	45.5	49.1	.0	50.9	48.9
S	.5	6.2	7.2	.5	.0	.0		14.4	11.6		14.9	.0	11.5	17.0	17.2	.0	15.7	12.5
SW	.0	1.9	1.1	.1	.0	.3		3.3	13.4		3.7	.0	3.4	3.6	2.8	.0	3.5	3.4
W	.3	1.2	1.6	.3	.0	.4		4.0	15.7		4.8	.0	3.2	4.5	1.8	.0	5.8	5.1
NW	.8	1.6	1.6	.6	.0	.0		4.7	11.4		4.8	.0	6.7	7.1	3.7	.0	3.4	2.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.4							1.4	.1		.0	.0	1.4	.0	2.8	.0	2.3	1.1
TOT OBS	29	184	306	53	0	4	576		13.2		94	2	141	56	109	0	86	88
TOT PCT	4.0	31.9	53.1	9.2	.0	.7	100.0				100.0	100.0	100.0	100.0	100.0	.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	06	12	18
N	.7	.8	.3	.0	.0		1.8	.5	2.5	2.3	1.4
NE	1.0	.9	.2	.0	.0		2.0	1.1	2.8	.2	2.9
E	2.8	8.0	10.1	.1	.0		21.0	24.7	23.9	17.0	20.2
SE	4.7	25.8	16.0	.8	.0		47.3	45.5	44.5	45.5	49.1
S	2.4	9.0	3.0	.0	.0		14.4	14.9	11.5	17.0	17.2
SW	1.2	1.3	.6	.0	.3		3.3	3.7	3.4	3.6	2.8
W	1.5	1.2	.8	.1	.4		4.0	4.8	3.2	4.5	1.8
NW	1.7	1.4	1.5	.1	.0		4.7	4.8	6.7	7.1	3.7
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0
CALM	1.4						1.4	.0	1.4	.0	2.8
TOT OBS	100	279	187	6	576			94	2	141	56
TOT PCT	17.4	48.4	32.5	1.0	.7	100.0		100.0	100.0	100.0	100.0



NOVEMBER

PERIOD: (PRIMARY) 1802-1971  
(COVER-ALL) 1894-1971

AREA 0002 CHRISTMAS ISLAND  
10.05 104.9E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
0000Z	.0	4.2	34.4	31.0	10.4	.0	.0	12.8	100.0	96
0600Z	1.0	4.6	32.0	55.3	6.6	.0	.0	12.8	100.0	197
1201Z	2.8	3.7	23.9	58.7	10.1	.0	.0	13.8	100.0	109
1802Z	1.7	2.3	35.6	48.3	10.9	.0	1.1	13.5	100.0	174
TOT	8	21	184	306	53	0	4	13.2		576
PCT	1.4	3.6	31.9	53.1	9.2	.0	.7		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL CLOUD OBS	MEAN CLOUD COVER
N	.0	.0	1.6	.0		7.0
NE	.0	1.1	.3	.5		4.8
E	3.6	3.0	8.2	2.7		5.0
SE	10.2	16.8	29.3	3.8		4.6
S	.0	4.4	8.0	2.5		5.4
SW	.0	1.1	.0	1.4		5.7
W	.0	.0	.0	.0		7.0
NW	.0	.0	1.6	1.1		7.0
VAR	.0	.0	.0	.0		7.0
CALM	.0	.0	1.1	1.1		7.0
TOT OBS	13	24	42	12	91	5.0
TOT PCT	14.3	26.4	46.2	13.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NM >4/8  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NM <5/8	TOTAL
	149	259	599	599	1599	3499	4999	6499	7999		ANY HG	OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.4	
SE	.0	.0	1.1	2.5	6.9	5.8	1.1	.0	.0	.0	38.7	
S	.0	.0	.0	1.6	3.6	1.1	.0	.0	.0	1.1	8.0	
SW	.0	.0	.0	.0	.0	1.1	.0	.0	.0	.0	1.1	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
VAR	.0	.0	.0	.0	.0	1.1	.0	.0	.0	.0	1.6	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT OBS	0	0	1	5	11	10	1	.0	.0	.0	1.1	91
TOT PCT	.0	.0	1.1	5.5	10.5	11.0	1.1	.0	.0	.0	63.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
>5000	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
>3500	1.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
>2000	8.5	11.7	12.8	12.8	12.8	12.8	12.8	12.8
>1000	14.1	26.6	28.7	28.7	28.7	28.7	28.7	28.7
>600	20.2	31.9	34.0	34.0	34.0	34.0	34.0	34.0
>300	20.2	33.0	35.1	35.1	35.1	35.1	35.1	35.1
>150	20.2	33.0	35.1	35.1	35.1	35.1	35.1	35.1
>0	70.2	33.0	35.1	35.1	35.1	35.1	35.1	35.1
TOTAL	19	31	33	33	33	33	33	33

TOTAL NUMBER OF OBS: 94

PCT FREQ NM <5/8: 64.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

C	1	2	3	4	5	6	7	8	OBS	TOTAL
										OBS
7.0	14.0	17.0	23.0	8.0	8.0	9.0	9.0	8.0	.0	100

NOVEMBER

PERIOD: (PRIMARY) 1862-1971  
(OVER-ALL) 1854-1971

AREA 0002 CHRIS MAS ISLAND  
10.0S 104.9E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	1.8	.0	.0	.9	.0	.0	.9	7.6	
	NO PCP	.0	.0	.0	1.8	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	1.8	.0	.0	.9	.0	.0	.9	3.6	
5<10	PCP	.0	.0	.0	.2	.7	.0	.0	.0	.0	.0	.9	
	NO PCP	.0	.0	1.4	9.5	2.5	1.1	.0	.0	.0	.0	14.4	
	TOT %	.0	.0	1.4	9.7	3.2	1.1	.0	.0	.0	.0	15.3	
10+	PCP	.0	.7	.7	.0	.9	.0	.0	.0	.0	.0	1.5	
	NO PCP	1.4	1.4	13.3	46.2	11.0	.9	.9	1.4	.0	.9	79.3	
	TOT %	1.4	1.6	14.0	46.2	11.9	.9	.9	1.4	.0	.9	81.1	
TOT OBS													111
TOT PCT		1.4	1.6	15.3	59.7	13.1	2.0	.9	2.3	.0	1.8	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.8	
	4-10	.0	.0	.0	.0	.0	.0	.0	.8	.0	.0	.8	
	11-21	.0	.0	.0	1.6	.0	.0	.0	.0	.0	.0	1.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	1.6	.0	.0	.0	.8	.0	.8	3.1	
5<10	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	1.7	1.4	.8	.0	.0	.0	.0	3.9	
	11-21	.0	.0	1.2	6.6	2.9	.2	.0	.0	.0	.0	10.9	
	22+	.0	.0	.0	1.6	.0	.0	.0	.0	.0	.0	1.6	
	TOT %	.0	.0	1.2	9.9	4.3	1.0	.0	.0	.0	.0	16.3	
10+	0-3	.0	.0	1.9	.4	.0	.0	.8	.0	.0	.8	3.9	
	4-10	1.2	1.2	5.6	28.9	8.3	.8	.0	1.2	.0	.0	47.3	
	11-21	.0	.2	4.3	17.4	3.0	.0	.0	.0	.0	.0	27.1	
	22+	.0	.0	.0	1.7	.6	.0	.0	.0	.0	.0	2.3	
	TOT %	1.2	1.4	12.0	48.4	14.1	.8	.8	1.2	.0	.8	80.6	
TOT OBS													129
TOT PCT		1.2	1.4	13.2	59.9	18.4	1.7	.8	1.9	.0	1.6	100.0	

# NOVEMBER

PERIOD: (PRIMARY) 1862-1971  
(COVER-ALL) 1854-1971

AREA 0002 CHRISTMAS ISLAND  
10.05 104.9E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH  $\geq 4/8$  AND  
OCCURRENCE OF NH  $\leq 5/8$  BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH $\leq 5/8$ ANY HGT	TOTAL OBS
00Z03	.0	.0	3.8	3.8	7.7	15.4	.0	.0	.0	3.8	34.6	65.4	26
06Z09	.0	.0	.0	2.9	20.6	5.9	2.9	.0	.0	.0	32.4	67.6	34
12Z15	.0	.0	.0	13.0	13.0	4.3	.0	.0	.0	.0	30.4	69.6	73
18Z21	.0	.0	.0	.0	18.8	18.8	.0	.0	.0	.0	37.5	62.5	16
TOT	0	0	1	5	15	10	1	0	0	1	33	66	99
PCT	.0	.0	1.0	5.1	15.2	10.1	1.0	.0	.0	1.0	33.3	66.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	$< 1/2$	$1/2 < 1$	$1 < 2$	$2 < 5$	$5 < 10$	$10 >$	TOTAL OBS
00Z03	.0	.0	.0	.0	24.2	75.8	33
06Z09	.0	.0	.0	4.3	15.2	80.4	46
12Z15	.0	.0	.0	3.6	10.7	85.7	28
18Z21	.0	.0	.0	3.6	10.7	85.7	28
TOT	0	0	0	4	21	110	135
PCT	.0	.0	.0	3.0	15.6	81.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET) NH  $\geq 4/8$  BY HOUR

HOUR (GMT)	$< 150$ $< 50 YD$	$< 600$ $< 1$	$< 1000$ $< 5$	$1000+$ AND $5+$	NH $\leq 5/8$ AND $5+$	TOTAL OBS
00Z03	.0	4.2	8.3	29.2	63.5	24
06Z09	.0	.0	6.3	28.1	63.6	32
12Z15	.0	.0	13.6	18.2	68.2	22
18Z21	.0	.0	6.3	31.3	62.5	16
TOT	0	1	8	25	61	94
PCT	.0	1.1	8.5	26.6	64.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	1.0	.0	.0	.0	.0	1	1.0
85/89	.0	.0	.0	.0	1.0	2.1	.0	.0	3	3.1
80/84	.0	.0	.0	.0	4.2	36.5	28.1	6.3	72	75.0
75/79	.0	.0	.0	.0	3.1	5.2	11.5	1.0	20	20.8
TOTAL	0	0	0	1	8	42	38	7	96	100.0
PCT	.0	.0	.0	1.0	8.3	43.8	39.6	7.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.5	.5	.0	.0	.0	.0	.0
.0	.0	1.0	1.0	.0	.0	1.0	.0	.0	.0
1.6	1.8	14.8	43.2	9.9	1.0	.0	1.6	.0	1.0
.0	.0	1.8	10.7	4.9	1.3	.0	1.0	.0	1.0
1.6	1.8	17.7	55.5	15.4	2.3	1.0	2.6	.0	2.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00Z03	85	83	82	80	77	76	76	80.1	91
06Z09	90	87	86	81	77	76	74	81.3	189
12Z15	86	85	83	80	77	74	74	80.1	108
18Z21	85	84	82	79	76	75	70	79.3	165
TOT	90	86	84	80	77	75	70	80.3	553

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00Z03	.0	.0	3.7	51.9	37.0	7.4	80	27
06Z09	.0	3.0	6.1	45.5	42.4	3.0	79	33
12Z15	.0	.0	14.3	39.3	38.1	14.3	79	21
18Z21	.0	.0	11.1	44.4	38.9	5.6	80	18
TOT	0	1	8	44	39	7	80	99

PERIOD: (PRIMARY) 1862-1971  
(OVER-ALL) 1854-1971

NOVEMBER

AREA 0002 CHRISTMAS ISLAND  
10.05 104.9E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	77 80	81 84	83 88	TOT	% FOG	% FOG
5	.0	.0	1.1	1	.0	1.1
4	.0	3.2	.0	3	.0	3.2
3	.0	4.1	2.1	4	.0	4.3
2	.0	6.4	.0	6	.0	6.4
1	3.2	1.1	.0	4	.0	4.3
0	16.0	21.3	.0	37	.0	37.2
-1	8.5	3.2	.0	11	.0	11.7
-2	11.7	5.3	.0	16	.0	17.0
-3	4.3	2.1	.0	6	.0	6.4
-4	3.2	1.1	.0	4	.0	4.3
-5	2.1	.0	.0	2	.0	2.1
-7/-8	1.1	.0	.0	1	.0	1.1
-9/-10	1.1	.0	.0	1	.0	1.1
TOTAL	48	43	3	94	0	94
PCT	51.1	45.7	3.2	100.0		100.0

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

MGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	2.0
1-2	.0	2.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.0	.0	.0	.0	.0	2.0	.0	2.0	.0	.0	.0	.0	2.0

MGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	2.0
1-2	.0	5.6	.0	.0	.0	.0	5.6	.0	10.7	4.1	.0	.0	.0	14.8
3-4	.0	.0	6.6	.0	.0	.0	6.6	.0	14.8	10.2	.0	.0	.0	25.0
5-6	.0	1.5	.0	.0	.0	.0	1.5	.0	.0	6.6	.0	.0	.0	6.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.1	.0	.0	.0	4.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.1	.0	.0	.0	6.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.6	.0	.0	.0	4.6
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	7.1	6.6	.0	.0	.0	13.8	.0	27.6	31.1	4.6	.0	.0	63.3

PERIOD: (OVER-ALL) 1963-1971

NOVEMBER

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	4.1	.0	.0	.0	.0	4.1	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	3.6	5.1	.0	.0	.0	8.7	.0	2.0	.5	.0	.0	.0	2.5	.0
5-6	.0	.0	1.5	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	1.5	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	7.7	6.6	1.5	.0	.0	15.8	.0	2.0	.5	.0	.0	.0	2.5	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	.0	4.1	.0	.0	.0	.0	4.1	.0
1-2	.0	22.4	4.1	.0	.0	.0	26.5	.0
3-4	.0	20.4	22.4	.0	.0	.0	42.8	.0
5-6	.0	2.0	8.2	.0	.0	.0	10.2	.0
7	.0	.0	4.1	.0	.0	.0	4.1	.0
8-9	.0	.0	0.1	.0	.0	.0	0.1	.0
10-11	.0	.0	.0	6.1	.0	.0	6.1	.0
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	49.0	44.9	6.1	.0	.0	100.0	.0

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.2	6.2	12.3	8.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	23	3
6-7	.0	8.6	16.0	7.4	4.9	4.9	2.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	36	5
8-9	.0	.0	6.2	3.7	3.7	1.2	1.2	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14	6
10-11	.0	.0	2.5	1.2	.0	.0	.0	3.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	7
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0
INDET	.0	.0	.0	1.2	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0
TOTAL	1	12	30	18	8	5	3	4	0	0	0	0	0	0	0	0	0	0	0	81	5
PCT	1.2	14.8	37.0	22.2	9.9	6.2	3.7	4.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1861-1971  
(OVER-ALL) 1854-1971

DECEMBER

AREA 0002 CHRISTMAS ISLAND  
10.25 105.2E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
N	.0	.0	.0	.0	.0	.0	.0	.0	9.5	.0	.0	.0	.0	90.5
NE	.0	21.1	.0	.0	.0	.0	.0	21.1	.0	.0	.0	.0	.0	78.9
E	.0	37.5	.0	.0	.0	.0	.0	17.5	.0	.0	.0	.0	.0	62.5
SE	.0	3.0	.7	.0	.0	.0	.0	8.7	2.9	1.7	.0	.0	.0	79.7
S	.0	.0	2.6	.0	.0	.0	.0	2.6	.0	3.5	.0	.0	.0	93.9
SW	9.8	.0	.0	.0	.0	.0	.0	9.8	.0	.0	.0	.0	.0	90.2
W	.0	9.4	.0	.0	.0	.0	.0	9.4	.0	.0	.0	.0	.0	90.6
NW	.0	3.4	.0	.0	.0	.0	.0	3.4	13.8	.0	.0	.0	.0	82.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	50.0	.0	.0	.0	.0	.0	.0	50.0	.0	.0	.0	.0	.0	50.0
TOT PCT	1.8	6.3	.9	.0	.0	.0	.0	8.9	2.7	3.6	.0	.0	.0	84.8
TOT OBS	112													

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
0000Z	.0	4.0	.0	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	96.0
0600Z	2.5	7.3	.0	.0	.0	.0	.0	10.0	5.0	.0	.0	.0	.0	85.0
1200Z	.0	8.0	.0	.0	.0	.0	.0	8.0	.0	4.0	.0	.0	.0	88.0
1800Z	4.2	4.2	4.2	.0	.0	.0	.0	12.5	4.2	12.5	.0	.0	.0	70.8
TOT PCT	1.8	6.1	.9	.0	.0	.0	.0	8.8	2.6	3.5	.0	.0	.0	85.1
TOT OBS	114													

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18
N	1.5	1.8	1.1	.0	.0	.0		4.4	6.5	3.5	.0	5.3	1.9	3.4	.0	6.3	5.1
NE	1.2	2.8	.6	.0	.0	.0		4.6	6.4	2.8	.0	7.5	3.8	3.8	.0	3.7	3.7
E	.9	4.3	1.7	.2	.0	.0		7.2	9.0	7.6	50.0	4.7	7.5	5.0	100.0	9.2	8.8
SE	1.2	13.2	7.3	.3	.0	.0		22.0	9.6	22.2	.0	24.4	23.6	22.2	.0	20.6	18.4
S	2.1	12.4	11.9	.7	.0	.0		27.1	10.6	33.9	50.0	20.9	30.2	27.8	.0	31.3	23.5
SW	2.7	6.7	8.2	.0	.0	.0		17.6	9.4	15.2	.0	17.7	19.8	19.7	.0	14.7	19.9
W	2.1	4.7	3.6	.6	.0	.0		11.0	9.7	8.2	.0	12.2	10.4	13.8	.0	7.4	13.2
NW	.6	2.4	.8	.0	.0	.0		3.8	7.9	4.1	.0	4.9	2.8	1.9	.0	2.6	5.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.3							2.3	.0	2.5	.0	2.4	.0	2.5	.0	4.4	1.5
TOT OBS	70	231	168	9	0	0	478		9.2	79	2	127	53	80	1	68	68
TOT PCT	14.6	48.3	33.1	1.9	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	09	12
N	2.6	1.8	.0	.0	.0		4.4	6.5	3.4	4.3	3.4	5.7	
NE	2.6	1.9	.0	.0	.0		4.6	6.4	2.8	6.4	3.7	3.7	
E	2.2	4.3	.6	.0	.0		7.2	9.0	8.6	5.6	6.2	9.0	
SE	6.3	14.1	1.5	.1	.0		22.0	9.6	21.6	24.2	21.9	19.5	
S	7.0	15.5	4.6	.1	.0		27.1	10.6	34.3	23.6	27.5	27.4	
SW	6.4	9.3	1.9	.0	.0		17.6	9.4	14.8	18.3	19.4	17.3	
W	4.2	4.8	1.8	.2	.0		11.0	9.7	8.0	11.7	13.6	10.3	
NW	1.3	2.5	.1	.0	.0		3.8	7.9	4.0	4.3	1.9	4.2	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	2.3						2.3	.0	2.5	1.7	2.5	2.9	
TOT OBS	167	259	50	2	0	478		9.2	81	180	81	136	
TOT PCT	34.9	54.2	10.5	.4	.0		100.0		100.0	100.0	100.0	100.0	

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

MO:HR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000J	2.5	16.0	34.5	40.7	1.2	.0	.0	3.1	100.0	81
0600J	1.7	11.1	49.4	34.4	3.3	.0	.0	4.5	100.0	180
1201J	2.5	13.6	45.7	37.0	1.2	.0	.0	9.2	100.0	81
1802J	2.9	11.0	53.7	31.6	.7	.0	.0	9.0	100.0	136
TOT	11	59	231	168	6	0	0	9.2		478
PCT	2.3	12.3	48.3	35.1	1.9	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OVER	TOTAL OBS	MEAN CLOUD COVER
N	3.0	3.9	1.2	.0		3.2
NE	.0	.0	1.2	3.6		7.2
E	2.1	.0	2.4	.9		4.7
SE	0.6	5.5	12.5	3.6		9.1
S	6.3	4.2	12.5	4.8		9.0
SW	1.2	1.8	5.7	1.8		9.6
W	1.2	.6	3.6	1.8		9.6
NW	1.8	2.7	2.7	.3		4.0
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	1.2	1.2		6.5
TOT OBS	16	17	36	15	84	9.0
TOT PCT	19.0	20.2	42.9	17.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT./NM 34/8)  
AND OCCURRENCE OF NM 45/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NM 45/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	6.8
NE	.0	.0	1.2	.0	.0	2.4	.0	.0	.0	.0	.0	1.8
E	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	5.4
SE	.3	.0	.0	.0	3.9	.0	.6	.3	1.2	.0	.0	19.9
S	.9	.0	1.2	.0	2.1	2.1	.6	.9	.0	.0	.0	19.9
SW	.0	.0	.0	2.4	.3	1.5	.0	.0	.0	.0	.0	6.3
W	.0	.0	.0	.9	1.8	.0	.0	.0	.0	.0	.0	4.5
NW	.0	.0	.0	.3	1.5	.0	.0	.0	.0	.0	.0	5.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0	.0	1.2
TOT OBS	1	0	3	3	9	5	1	1	1	0	0	84
TOT PCT	1.2	.0	3.6	3.6	10.7	5.0	1.2	1.2	1.2	.0	71.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM 34/8) AND VSBY (NM)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NM)				= OR >5000	= OR >0
				= OR >1	= OR >1/2	= OR >1/4			
= OR >6500	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
= OR >5000	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
= OR >3500	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
= OR >2000	8.3	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
= OR >1000	15.5	19.0	20.2	20.2	20.2	20.2	20.2	20.2	20.2
= OR >600	19.0	22.6	23.8	23.8	23.8	23.8	23.8	23.8	23.8
= OR >300	20.2	25.0	27.4	27.4	27.4	27.4	27.4	27.4	27.4
= OR >150	20.2	25.0	27.4	27.4	27.4	27.4	27.4	27.4	27.4
= OR >0	20.2	26.2	28.6	28.6	28.6	28.6	28.6	28.6	28.6
TOTAL	17	22	24	24	24	24	24	24	24

TOTAL NUMBER OF OBS: 84

PCT FREQ NM 45/81 71.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
6.7	22.5	19.1	15.7	9.0	4.5	9.0	4.5	7.9	1.1	89

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (MM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.4	.4	.0	.0	.0	.0	.0	.0	.9	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.4	.4	.0	.0	.0	.0	.0	.0	.9	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	
	NO PCP	.0	.0	.0	.9	.9	.0	.0	.0	.0	.0	1.8	
	TOT %	.0	.0	.0	.9	.9	.0	.0	.0	.0	.0	2.7	
5<10	PCP	.0	.9	.9	2.0	.7	.0	.7	.2	.0	.9	6.3	
	NO PCP	7.7	.0	.9	7.0	2.7	.4	1.8	.0	.0	.0	16.1	
	TOT %	2.7	.9	1.8	9.0	3.3	.4	2.5	.2	.0	.9	22.3	
10+	PCP	.0	.0	.7	.2	.0	.0	.0	.0	.0	.0	.9	
	NO PCP	6.7	3.3	2.5	19.0	21.4	7.8	4.7	6.3	.0	.9	73.2	
	TOT %	4.7	3.3	3.1	19.9	21.4	7.8	4.7	6.3	.0	.9	74.1	
TOT OBS													112
TOT PCT		9.4	4.2	5.4	30.8	25.7	9.2	7.1	6.5	.0	1.8	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (MM)	SPEED KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.4	.4	.0	.0	.0	.0	.0	.0	.8	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.4	.4	.0	.0	.0	.0	.0	.0	.8	
2<5	0-3	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.8	
	4-10	.0	.0	.0	.0	.8	.8	.0	.0	.0	.0	1.6	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.8	.8	.8	.0	.0	.0	.0	2.5	
5<10	0-3	.0	.0	.0	1.2	.4	.0	.8	.0	.0	.8	3.3	
	4-10	2.5	.8	1.8	6.6	.8	.0	.8	.0	.0	.0	13.1	
	11-21	.0	.0	.0	1.0	1.8	.4	.8	.2	.0	.0	4.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	2.5	.8	1.8	8.8	3.1	.4	2.3	.2	.0	.8	20.3	
10+	0-3	2.0	.4	.8	.0	3.9	2.0	.6	.0	.0	.8	10.7	
	4-10	1.4	2.5	1.4	12.7	15.4	3.5	2.3	4.3	.0	.0	43.4	
	11-21	2.7	.2	.8	9.6	4.5	1.6	1.4	1.4	.0	.0	22.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	6.1	3.1	2.9	22.3	23.8	7.2	4.9	5.7	.0	.3	76.2	
TOT OBS													122
TOT PCT		8.6	3.9	4.9	32.4	27.7	8.4	6.6	5.9	.0	1.6	100.0	



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TABLE 10

PERCENT FREQUENCY OF CRUISING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	4.5	9.1	13.6	13.6	.0	.0	.0	.0	40.9	59.1	22
06009	.0	.0	3.1	.0	9.4	6.3	3.1	.0	3.1	.0	25.0	75.0	32
12015	.0	.0	.0	4.8	14.3	.0	.0	.0	.0	.0	19.0	81.0	21
18021	7.1	.0	7.1	.0	.0	.0	.0	7.1	.0	.0	21.4	78.6	14
TOT	1	0	3	3	9	5	1	1	1	0	24	65	89
PCT	1.1	.0	3.4	3.4	10.1	5.6	1.1	1.1	1.1	.0	27.0	73.0	100.0

TABLE 11

PERCENT FREQUENCY VS BY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	3.7	11.1	85.2	27
06009	.0	.0	2.3	2.3	15.9	79.5	44
12015	.0	.0	.0	4.0	20.0	76.0	25
18021	.0	.0	.0	.0	39.3	60.7	28
TOT	0	0	1	3	26	94	124
PCT	.0	.0	.8	2.4	21.0	75.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NH) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	4.8	14.3	28.6	57.1	21
06009	.0	3.4	4.9	24.1	69.0	29
12015	.0	.0	10.0	10.0	80.0	20
18021	7.1	14.3	14.3	7.1	78.6	14
TOT	1	4	9	16	59	84
PCT	1.2	4.8	10.7	19.0	70.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	3.1	4.2	.0	.0	7	7.3
80/84	.0	.0	.0	.0	6.3	33.3	31.3	8.3	76	79.2
75/79	.0	.0	.0	.0	.0	5.2	4.2	4.2	13	13.5
TOTAL	0	0	0	0	9	41	34	12	96	100.0
PCT	.0	.0	.0	.0	9.4	42.7	35.4	12.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
1.0	.0	.0	2.9	2.3	.0	.0	1.0	.0	.0	.0
9.1	4.7	5.5	22.7	20.1	6.3	5.7	4.2	.0	1.0	1.0
.0	.0	.0	3.6	4.7	2.3	.8	1.0	.0	1.0	1.0
10.2	4.7	5.5	29.2	27.1	8.6	6.5	6.3	.0	2.1	

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	84	83	83	81	77	77	77	80.6	81
06009	90	89	87	83	78	77	76	82.7	175
12015	85	84	84	81	78	77	77	81.1	80
18021	84	82	82	80	77	76	75	80.0	137
TOT	90	88	86	81	77	77	75	81.3	473

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	5.0	40.0	45.0	10.0	81	20
06009	.0	.0	25.0	40.6	25.0	9.4	77	32
12015	.0	.0	.0	43.5	34.8	21.7	83	23
18021	.0	.0	.0	43.5	47.8	8.7	82	23
TOT	0	0	9	41	36	12	80	98

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TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	77 80	81 84	85 88	89 92	TOT	N FOG	W FOG
5	.0	.0	4.4	1.1	5	.0	5.6
4	.0	1.1	1.1	.0	2	.0	2.2
3	.0	1.1	.0	.0	1	.0	1.1
2	.0	5.6	.0	.0	5	.0	5.6
1	1.1	11.1	.0	.0	11	.0	12.2
0	5.6	14.4	.0	.0	18	.0	20.0
-1	7.8	14.4	.0	.0	20	.0	22.2
-2	7.8	7.8	1.1	.0	15	.0	16.7
-3	2.2	.0	.0	.0	2	.0	2.2
-4	4.4	3.3	.0	.0	7	.0	7.8
-5	2.2	1.1	.0	.0	3	.0	3.3
-6	1.1	.0	.0	.0	1	.0	1.1
TOTAL	29		6		90		90
PCT	32.2	60.0	6.7	1.1	100.0		100.0

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

MGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	2.9	.0	.0	.0	.0	.0	2.9	.0	.0	.0	.0	.0	.0	.0
1-2	4.3	.0	.0	.0	.0	.0	4.3	1.4	2.9	.0	.0	.0	.0	4.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	5.7	.0	.0	.0	.0	5.7
5-6	.0	2.9	2.9	.0	.0	.0	5.7	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	7.1	2.9	2.9	.0	.0	.0	12.9	1.4	8.6	.0	.0	.0	.0	10.0

MGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	2.9	.0	.0	.0	.0	2.9
1-2	.0	.0	.0	.0	.0	.0	.0	.0	16.4	2.9	.0	.0	.0	19.3
3-4	.0	.0	2.1	.0	.0	.0	2.1	.0	2.9	9.3	.0	.0	.0	12.1
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	2.1	.0	.0	.0	2.1	.0	22.1	12.1	.0	.0	.0	34.3

PERIOD: (OVER-ALL) 1963-1971

DECEMBER

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	15.0	2.9	.0	.0	.0	17.9	2.9	.0	.0	.0	.0	.0	2.9
3-4	.0	.0	.0	.0	.0	.0	.0	.0	6.4	.0	.0	.0	.0	6.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	15.0	2.9	.0	.0	.0	17.9	2.9	6.4	.0	.0	.0	.0	9.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	5.0	.0	.0	.0	.0	5.0	.0	2.9	.0	.0	.0	.0	2.9	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.0	.0	.0	.0	.0	5.0	.0	2.9	.0	.0	.0	.0	2.9	94.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	8.6	2.9	.0	.0	.0	.0	11.4	.0
1-2	8.6	34.3	5.7	.0	.0	.0	48.6	.0
3-4	.0	22.9	11.4	.0	.0	.0	34.3	.0
5-6	.0	2.9	2.9	.0	.0	.0	5.7	.0
7	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	17.1	62.9	20.0	.0	.0	.0	100.0	35

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
<6	.0	21.1	14.1	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	26	3
6-7	.0	1.4	22.5	18.3	4.2	1.4	.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	33	4
8-9	.0	.0	2.8	4.2	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	5
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0
12-13	.0	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	7
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0
INDET	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	0
TOTAL	2	16	28	17	6	1	0	1	0	0	0	0	0	0	0	0	0	0	0	.0	71	4
PCT	2.8	22.5	39.4	23.9	8.3	1.4	0	1.4	0	0	0	0	0	0	0	0	0	0	0	.0	100.0	

PERIOD: (PRIMARY) 1960-1972  
(OVER-ALL) 1954-1972

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	3.2	1.1	.0	.0	.0	.0	.0	4.4	13.4	1.0	.0	.0	.0	.0	64.5
NE	7.1	4.0	2.6	.0	.0	.0	.0	13.6	3.4	.0	.0	.0	.0	.0	74.6
E	3.2	5.6	.6	.0	.0	.0	.0	9.4	3.0	.7	.3	.0	.0	.0	86.7
SE	2.2	2.3	.5	.0	.0	.0	.0	5.0	3.3	2.2	1.3	.0	.0	.0	88.4
S	1.5	4.0	.7	.0	.0	.0	.0	6.3	4.3	1.4	.0	.0	.0	.0	88.1
SW	4.3	4.2	.0	.0	.0	.0	.0	8.5	1.8	.2	.0	.0	.0	.0	72.9
W	.0	2.1	.0	.0	.0	.0	.0	2.1	5.3	.0	.0	.0	.0	.0	50.9
NW	4.1	3.9	4.2	.0	.0	.0	.0	8.9	5.9	.1	.0	.0	.0	.0	51.8
VAP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	8.3	1.7	.0	.0	.0	.0	.0	10.0	.0	.0	.0	.0	.0	.0	56.7
TOT PCT	2.1	2.3	.7	.0	.0	.0	.0	5.0	3.7	1.3	.5	.0	.0	.0	89.7
TOT OBS:	1655														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
0000	2.4	1.7	.7	.0	.0	.0	.0	4.8	4.2	.2	.5	.0	.0	.0	90.3
0600	2.3	2.4	.6	.0	.0	.0	.0	5.3	3.2	.2	.7	.0	.0	.0	90.6
1200	1.7	2.1	.2	.0	.0	.0	.0	4.0	3.5	1.7	.5	.0	.0	.0	90.5
1800	2.2	2.7	1.2	.0	.0	.0	.0	5.7	3.7	4.6	.0	.0	.0	.0	86.3
TOT PCT	2.1	2.2	.6	.0	.0	.0	.0	4.9	3.7	1.4	.5	.0	.0	.0	89.7
TOT OBS:	1644														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.6	1.2	.6	.1	.0	.0		2.5	8.7	2.1	.0	3.4	2.1	2.3	.0	2.6	1.9	
NE	.5	2.4	1.7	.2	.0	.0		4.8	9.6	4.1	.0	6.0	5.3	5.7	4.1	4.3	4.9	
E	.8	8.0	20.1	4.9	.2	.0		34.1	13.0	33.9	26.2	33.5	35.4	33.6	31.8	32.9	34.1	
SE	.9	8.7	16.5	3.3	.2	.0		29.6	13.2	31.8	25.5	28.5	27.3	30.7	31.6	30.6	28.6	
S	.9	5.0	9.4	.3	.0	.0		9.7	11.3	10.6	11.8	7.9	11.8	10.4	3.8	10.4	8.2	
SW	1.1	3.4	1.6	.0	.0	.0		6.1	7.2	6.0	8.0	5.8	6.5	4.4	8.8	5.4	7.0	
W	.7	2.5	1.8	.3	.0	.0		5.4	9.0	5.1	2.1	5.5	5.0	5.5	2.5	5.3	5.4	
NW	.7	2.5	1.8	.4	.1	.0		5.3	9.2	4.4	1.4	6.6	5.7	4.9	.8	6.0	4.7	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	2.4							2.4	.0	1.9	.0	2.8	.9	2.5	.0	2.5	3.1	
TOT OBS							8186		12.6	1282	72	2246	903	1445	33	1210	1063	
TOT PCT	8.5	33.7	47.6	9.6	.6	.1		100.0		100.0	75.0	100.0	100.0	100.0	83.3	100.0	100.0	

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	1.3	.9	.3	.0	.0	2.5	8.7	2.1	3.0	2.3	2.3			
NE	1.4	2.4	.9	.0	.0	4.8	9.6	4.0	5.8	3.7	4.6			
E	3.3	14.7	14.9	1.1	.0	34.1	13.0	33.9	34.1	33.5	34.4			
SE	3.5	14.4	10.9	.7	.0	29.6	13.2	31.8	28.1	31.0	29.6			
S	2.7	5.5	1.5	.0	.0	9.7	11.3	10.8	8.9	10.4	9.4			
SW	2.8	2.9	.4	.0	.0	6.1	7.2	6.1	5.9	6.5	6.1			
W	1.7	2.7	.8	.1	.1	5.4	9.0	5.1	5.4	5.5	5.4			
NW	1.8	2.7	.9	.1	.1	5.3	9.2	4.4	6.5	4.8	5.4			
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
CALM	2.4					2.4		1.8	2.4	2.4	2.8			
TOT OBS						8186	12.6	1284	3149	1480	2273			
TOT PCT	20.9	46.1	30.5	2.2	.2		100.0	100.0	100.0	100.0	100.0			

PERIOD: (PRIMARY) 1860-1972  
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			40+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	1.8	5.6	36.1	47.1	8.8	.6	.0	12.5	100.0	1284
06009	2.4	6.8	32.8	47.4	9.8	.8	.1	12.6	100.0	3149
12015	2.4	6.1	34.7	47.9	8.3	.4	.1	12.4	100.0	1480
18021	2.8	5.4	32.9	47.8	10.5	.4	.1	12.8	100.0	2273
TOT								12.6		8186
PCT	2.4	6.1	33.7	47.6	9.6	.6	.1	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-10	TOTAL OBS	MEAN CLOUD COVER
N	.5	.5	1.1	.4		4.2
NE	1.0	.9	.9	.7		4.4
E	7.8	8.0	8.6	1.9		4.1
SE	6.7	12.3	16.3	3.7		4.5
S	2.5	2.5	3.6	1.0		4.8
SW	.8	1.3	2.5	.5		3.4
W	.5	.7	2.5	1.0		2.6
NW	.5	1.1	2.0	1.5		3.7
VAR	.0	.0	.0	.0		.0
CALM	.7	.4	.6	.5		3.0
TOT OBS					1281	5.5
TOT PCT	22.9	27.6	38.2	11.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

BY OCCUPANCY OF THE 1000 OF THE DISTRICT											
000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
.0	.0	.0	.2	.3	.7	.1	.0	.0	.0	1.8	
.0	.0	.1	.2	.3	.3	.1	.0	.0	.0	2.5	
.1	.0	.2	.8	2.5	1.3	.6	.1	.0	.0	20.9	
* .0	.1	.4	2.2	4.7	3.1	.5	.1	.1	.1	29.8	
.1	.0	.2	.4	.7	.6	.2	.1	.0	.1	7.4	
.0	.0	.1	.4	.5	.3	.0	.0	.0	.1	3.8	
.0	.0	.0	.4	.8	.4	.0	.0	.0	.0	3.1	
.0	.0	.0	.5	.9	.8	* .0	.2	.0	.0	2.8	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.1	.1	.2	.0	.0	.0	.0	.0	1.8	
.2	.1	1.0	5.2	10.7	7.0	1.5	.4	.1	.2	73.7	
										1281	
										100.0	

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>5000	>0
>6500	.3	.3	.3	.3	.3	.3	.3	.3
>5000	.7	.7	.7	.7	.7	.7	.7	.7
>3500	1.7	2.2	2.2	2.2	2.2	2.2	2.2	2.2
>2000	6.9	8.7	9.1	9.1	9.1	9.1	9.1	9.1
>1000	14.4	18.8	19.7	19.7	19.7	19.7	19.7	19.7
>600	17.8	23.8	24.8	24.8	24.9	24.9	24.9	24.9
>300	18.2	24.5	25.7	25.7	25.8	25.8	25.8	25.8
>150	18.2	24.6	25.8	25.8	25.8	25.8	25.9	25.9
>0	18.2	24.8	25.9	25.9	26.0	26.0	26.1	26.1

TOTAL NUMBER OF OBS: 1301

PCT FREQ NH <5/8: 73.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	CBSCD	TOTAL OBS
2.8	14.7	20.7	21.3	14.4	7.2	8.3	5.2	5.1	.2	1401

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TABLE 6

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
1<2	PCP	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.1	
2<5	PCP	.0	.0	*	.3	*	.1	.0	.1	.0	.1	.8	
	NO PCP	.0	.1	.3	.3	.3	.0	.1	.1	.0	.0	1.1	
	TOT %	.0	.1	.3	.6	.4	.1	.1	.1	.0	.1	1.9	
5<10	PCP	.1	.2	.2	1.1	.2	.1	.2	.4	.0	.1	2.5	
	NO PCP	.5	*	2.5	5.6	1.0	.4	.6	.6	.0	.0	11.2	
	TOT %	.6	.2	2.7	6.7	1.2	.4	.8	1.0	.0	.1	13.7	
10+	PCP	*	.1	.7	.3	.1	.0	.1	.1	.0	.0	1.5	
	NO PCP	1.9	2.6	22.1	35.2	7.6	4.5	3.6	3.6	.0	1.6	52.7	
	TOT %	1.9	2.8	22.8	35.5	7.7	4.5	3.7	3.7	.0	1.6	54.2	
TOT OBS													1653
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.1	
2<5	0-3	.0	.1	*	.1	.0	.1	.0	.0	.0	.1	.3	
	4-10	.0	.0	.2	.2	.2	.1	.1	.1	.0	.0	.8	
	11-21	.0	.0	.2	.3	.2	.0	*	.1	.0	.0	.8	
	22+	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.1	.4	.6	.3	.1	.1	.2	.0	.1	2.0	
5<10	0-3	.1	.0	.1	.1	.1	.2	.2	.1	.0	.1	.9	
	4-10	.3	.2	1.0	2.6	.6	.1	.3	.3	.0	.0	5.3	
	11-21	.1	*	1.2	3.5	.5	.2	.3	.4	.0	.0	6.3	
	22+	.0	.0	.3	.3	.0	.0	.0	*	.0	.0	.6	
	TOT %	.6	.2	2.6	6.4	1.2	.5	.7	.9	.0	.1	13.1	
10+	0-3	.4	.2	.9	.5	.5	.6	.3	.3	.0	1.8	5.6	
	4-10	.9	2.0	10.8	15.0	5.5	3.0	2.1	2.2	.0	.0	41.4	
	11-21	.5	.6	11.1	18.8	1.9	.8	1.4	1.1	.0	.0	36.3	
	22+	*	*	.9	.9	.0	.0	*	.0	.0	.0	1.4	
	TOT %	1.8	2.8	23.1	35.7	7.9	4.4	3.9	3.6	.0	1.8	84.7	
TOT OBS													1812
TOT PCT													100.0

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH >4/8) AND  
OCCURRENCE OF NH <1/8 BY HOUR

HOUR (GMT)	000	150	300	600	1000	2000	3000	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.3	2.3	5.5	9.7	7.7	1.1	.3	.0	.8	27.6	72.4	355
06009	.0	.0	.7	4.6	11.3	6.1	2.1	.0	.3	.0	25.1	74.9	421
12015	.0	.0	.3	5.0	9.7	6.0	1.4	.3	.0	.0	22.6	77.4	330
18021	1.0	.0	.6	3.6	8.7	5.6	.6	1.6	.0	.0	21.8	78.2	270
TOT PCT	.2	.1	.9	4.9	10.1	5.5	1.4	.4	.1	.2	24.7	75.3	1376 100.0

TABLE 11

PERCENT FREQUENCY VS BY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	1.2	10.7	88.1	438
06009	.0	.2	.2	1.6	11.0	87.0	566
12015	.5	.0	.0	2.4	14.1	83.0	422
18021	.0	.2	.0	2.6	17.1	80.0	415
TOT PCT	.1	.1	.1	1.9	13.1	84.6	1841 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NH) AND/OR  
CEILING HGT (FEET) NH >4/8) BY HOUR

HOUR (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	2.6	8.8	20.3	70.9	339
06009	.0	1.0	6.0	20.0	73.0	401
12015	.0	.3	7.5	16.8	75.7	308
18021	1.1	1.7	7.3	16.4	73.6	253
TOT PCT	.2	1.3	7.7	18.8	73.5	1301 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.1	.2	.0	.1	.0	.4	
85/89	.0	.0	.0	.1	2.0	3.5	.6	.0	6.2	
80/84	.0	.0	.0	.2	5.5	29.5	23.8	5.7	44.2	
75/79	.0	.0	.0	.0	1.0	10.7	13.3	3.8	28.7	
70/74	.0	.0	.0	.0	.0	.2	.1	.1	.4	
TOTAL PCT	.0	.0	.0	.3	8.8	44.0	37.3	9.2	1285 100.0	

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90	.0	.0	.0	.1	.2	.0	.0	.1	.0	.0
85	.1	.0	1.7	2.0	.5	.7	.6	.5	.0	.2
80	2.0	2.2	16.2	23.1	6.0	3.6	3.9	3.6	.0	1.5
75	.1	.6	7.1	16.2	2.4	.8	.3	.8	.0	.2
70	.1	.0	.8	.3	.0	.0	.0	.0	.0	.0
TOT	2.3	3.0	27.1	41.7	9.0	5.1	4.8	3.0	.0	1.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	97%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	97	86	84	81	77	76	73	80.2	1252
06009	94	84	86	82	78	76	66	81.6	3031
12015	90	85	84	81	78	76	70	80.3	1429
18021	88	84	83	80	77	74	69	79.5	2152
TOT	97	87	85	81	78	76	66	80.6	7864

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	3.7	40.0	43.5	10.8	.0	.0	80	332
06009	.0	.7	16.7	51.4	25.2	6.0	.0	.0	77	395
12015	.0	.3	5.7	42.2	40.9	10.9	.0	.0	80	311
18021	.0	.0	5.1	39.9	46.3	8.6	.0	.0	81	265
TOT	0	4	116	575	492	116	79	1303		

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TABLE 17

PCT FRPD OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	WD FOG
9/10	.0	.0	.0	.1	.1	.1	.1	5	.0	.4
7/8	.0	.0	.0	.0	.1	.1	.0	3	.0	.2
6	.0	.0	.0	.0	.0	.1	.0	1	.0	.1
5	.0	.0	.0	.1	.4	.7	.4	21	.0	1.6
4	.0	.0	.0	.2	1.0	.9	.3	34	.0	2.4
3	.0	.0	.0	.3	1.3	.7	.0	31	.0	2.3
2	.0	.0	.0	1.3	4.6	1.3	.1	104	.1	7.3
1	.0	.0	.1	4.4	7.7	.7	.0	184	.0	12.9
0	.0	.0	.3	9.2	13.1	.6	.0	318	.3	22.9
-1	.0	.0	.2	8.0	10.0	.3	.0	266	.1	18.4
-2	.0	.1	.8	9.8	6.5	.1	.0	186	.0	13.3
-3	.0	.1	.4	4.0	3.4	.0	.0	114	.0	7.9
-4	.0	.2	.3	2.9	2.2	.0	.0	79	.0	5.6
-5	.1	.0	.2	1.3	.7	.0	.0	31	.0	2.3
-6	.0	.0	.3	.7	.0	.0	.0	14	.0	1.0
-7/-8	.0	.0	.0	.5	.2	.0	.0	10	.0	.7
-9/-10	.0	.0	.0	.2	.0	.0	.0	3	.0	.2
-11/-12	.0	.0	.1	.0	.0	.0	.0	2	.0	.1
TOTAL								1406		
PCT	.1	.3	2.7	39.1	51.4	5.6	.9	100.0	.5	99.5

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FRPD OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N							PCT	NE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.4	.2	.0	.0	.0	.0	.0	.4	.1	.2	.0	.0	.0	.0	.0	.3
1-2	.4	.3	.1	.0	.0	.0	.0	.8	.1	1.1	.3	.0	.0	.0	.0	1.3
3-4	.0	.2	.0	.0	.0	.0	.0	.2	.0	1.0	.1	.0	.0	.0	.0	1.2
5-6	.0	.2	.4	.0	.0	.0	.0	.7	.0	.0	.5	.0	.0	.0	.0	1.5
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	.7	.5	.0	.0	.0	.0	2.0	.2	2.5	.9	.0	.0	.0	.0	3.6

HGT	E							PCT	SE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.2	.3	.0	.0	.0	.0	.0	.6	.0	1.5	.0	.0	.0	.0	.0	1.5
1-2	.1	5.8	.7	.0	.0	.0	.0	6.6	.0	9.0	2.9	.0	.0	.0	.0	11.9
3-4	.1	4.8	6.3	.1	.0	.0	.0	11.5	.2	4.8	8.8	.4	.0	.0	.0	14.3
5-6	.0	.9	6.3	.1	.0	.0	.0	7.3	.0	.9	5.6	.8	.0	.0	.0	7.3
7	.0	.0	1.7	.2	.0	.0	.0	1.9	.0	.1	3.9	.2	.0	.0	.0	4.2
8-9	.0	.0	.1	.2	.0	.0	.0	.3	.0	.0	1.4	.2	.0	.0	.0	1.5
10-11	.0	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.7	.0	.0	.0	.7
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	11.9	13.5	.6	.0	.0	.0	28.4	.2	16.5	22.7	2.3	.0	.0	.0	41.4



PERIOD: (OVER-ALL) 1963-1972

ANNUAL

AREA 0002 CHRISTMAS ISLAND  
10.15 105.2E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.1	.5	.0	.0	.0	.0	.6	.3	.2	.0	.0	.0	.0	.5	
1-2	.0	3.8	.4	.0	.0	.0	4.2	.4	2.8	.3	.0	.0	.0	3.5	
3-4	.0	1.8	1.7	.0	.0	.0	3.5	.0	1.3	.6	.0	.0	.0	1.9	
5-6	.0	.0	.6	.0	.0	.0	.6	.0	.0	.3	.0	.0	.0	.3	
7	.0	.0	.4	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.1	6.1	3.1	.1	.0	.0	9.4	.8	4.3	1.2	.0	.0	.0	6.3	

HGT	W							NW							TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.0	.0	.0	.0	.0	.0	.3	.2	.0	.0	.0	.0	.5	
1-2	.1	.9	.7	.0	.0	.0	1.6	.0	.4	.3	.0	.0	.0	.7	
3-4	.0	1.0	.4	.0	.0	.0	1.4	.0	.8	.5	.0	.0	.0	1.1	
5-6	.0	.0	.2	.0	.0	.0	.2	.0	.0	.4	.2	.0	.0	.6	
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.3	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.1	1.9	1.4	.0	.0	.0	3.3	.3	1.1	1.7	.2	.0	.0	3.3	97.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.5	3.0	.0	.0	.0	.0	6.5	
1-2	1.3	23.9	3.7	.0	.0	.0	30.8	
3-4	.2	15.5	18.6	.6	.0	.0	34.9	
5-6	.0	2.0	14.4	1.1	.0	.0	17.5	
7	.0	.3	8.5	.4	.0	.0	7.1	
8-9	.0	.0	1.5	.3	.0	.0	1.9	
10-11	.0	.0	.1	.0	.0	.0	.9	
12	.0	.0	.2	.0	.0	.0	.2	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.0	44.9	46.9	3.2	.0	.0	100.0	698

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-14	15-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.8	9.0	12.6	5.6	1.6	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	349	3
6-7	.0	2.2	12.5	12.9	5.8	2.8	.9	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	421	5
8-9	.0	.8	3.4	3.6	4.5	1.6	1.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	203	6
10-11	.0	.1	.8	1.3	1.7	.6	.2	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	85	7
12-13	.0	.0	.4	.2	1.0	.2	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	27	7
>12	.0	.0	.0	.0	.3	.2	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10	4
INDEX	1.1	.9	1.0	1.4	1.3	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	71	4
TOTAL PCT	1.9	12.8	30.9	27.6	16.1	9.9	2.9	1.7	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1146	5

PERIOD: (PRIMARY) 1860-1977  
(OVER-ALL) 1854-1972

AREA 0002 CHRISTMAS ISLAND  
10.15 105.2E

TABLE 20

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0
89/90	.0	.0	.6	.0	.2	.1	.0	.0	.0	.0	.0	.0	5	.1
87/88	.2	3.1	4.0	1.0	.2	.5	.0	.0	.0	.0	.2	.7	44	.6
85/86	4.5	13.0	20.0	15.7	6.2	3.8	1.3	.1	.6	.8	1.3	5.3	354	5.1
83/84	45.6	40.5	40.9	48.5	37.9	11.9	7.7	2.6	2.3	4.1	9.3	14.0	1283	18.4
81/82	43.6	38.3	27.0	31.3	46.8	48.4	31.1	16.9	13.0	19.7	43.1	61.9	2278	32.6
79/80	5.6	7.3	4.2	3.3	7.0	27.2	35.2	34.7	34.5	42.7	33.1	16.7	1687	24.2
77/78	.5	.0	1.7	.2	.8	7.1	19.1	37.3	36.6	25.2	11.4	.5	1035	14.8
75/76	.0	.0	1.3	.0	.6	.7	4.1	7.0	10.3	3.0	.8	.5	210	3.1
73/74	.0	.0	.2	.0	.0	.3	.4	.5	2.1	2.7	.2	.2	49	.7
71/72	.0	.0	.0	.0	.2	.0	.3	.4	.3	.9	.0	.0	15	.2
69/70	.0	.0	.0	.0	.0	.0	.8	.3	.3	.0	.0	.0	10	.1
67/68	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	1	.0
65/66	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
63/64	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
61/62	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
59/60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
57/58	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
55/56	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
53/54	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
51/52	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
49/50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
K27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	443	262	530	515	485	762	753	757	774	785	492	420	6978	100.0
MEAN	82.5	82.8	83.2	83.1	82.3	81.0	79.4	78.8	78.5	79.2	80.6	81.7	81.1	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

HR	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1010	1009	1009	1007	1009	1009	1009	1008	1009	159
FEB	1009	1012	1009	1007	1008	1012	1008		1009	125
MAR	1010		1007	1009	1009	1017	1010	1011	1010	152
APR	1010	1009	1009	1008	1009	1010	1010	1009	1009	165
MAY	1010		1010	1009	1010		1010	1009	1010	172
JUN	1011	1008	1010	1010	1011	1011	1011	1010	1011	195
JUL	1012		1012	1011	1011	1013	1012		1012	175
AUG	1012	1012	1012	1010	1017	1012	1012	1010	1012	169
SEP	1013		1012	1012	1012	1015	1012	1013	1012	165
OCT	1013		1012	1011	1017	1014	1012	1014	1012	190
NOV	1011	1012	1010	1011	1018		1010	1009	1010	115
DEC	1010	1010	1009	1008	1009	1010	1010	1010	1010	119
ANN	1011	1010	1010	1009	1010	1012	1011	1010	1011	1691
OBS	380	20	680	59	361	33	315	43		

PERCENTILES

MC	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	1004	1004	1006	1008	1010	1011	1012	1012	1013
FEB	1002	1004	1005	1008	1009	1010	1012	1013	1014
MAR	1001	1003	1006	1008	1010	1011	1013	1013	1015
APR	1005	1006	1007	1008	1009	1010	1012	1013	1014
MAY	1006	1006	1007	1009	1010	1011	1013	1014	1015
JUN	1005	1007	1008	1009	1011	1012	1014	1015	1018
JUL	1008	1008	1009	1011	1017	1013	1015	1017	1020
AUG	1006	1006	1008	1011	1012	1013	1014	1017	1020
SEP	1008	1008	1009	1011	1012	1014	1015	1018	1019
OCT	1005	1008	1009	1011	1012	1013	1014	1017	1018
NOV	1004	1004	1007	1009	1011	1012	1014	1014	1015
DEC	1006	1006	1007	1009	1010	1010	1012	1013	1014

PERIOD: (PRIMARY) 1879-1973  
(OVER-ALL) 1855-1973

JANUARY

AREA 0003 SUNDA STRAIT  
5.65 104.7E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG MEA
N	10.1	.0	4.3	.0	.0	.0	.0	10.1	.0	5.8	.0	.0	.0	.0	86.1
NE	.0	.0	.0	.0	.0	.0	.0	.0	11.8	2.9	.0	.0	.0	.0	85.3
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	27.3	.0	.0	.0	.0	72.7
SE	.0	.0	12.9	.0	.0	.0	.0	12.9	.0	.0	.0	.0	.0	.0	87.1
S	.0	.0	.0	.0	.0	.0	.0	.0	14.3	7.1	.0	.0	.0	.0	78.6
SW	7.1	3.6	3.6	.0	.0	.0	.0	14.3	1.8	9.6	.0	.0	.0	.0	75.9
W	7.7	5.8	3.8	.0	.0	.0	.0	17.3	5.8	8.7	1.9	.0	.0	.0	69.2
NW	16.1	2.0	.5	.0	.0	.0	.0	18.0	.0	5.9	2.0	.0	.0	.0	70.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	8.7	2.7	2.7	.0	.0	.0	.0	13.6	3.3	7.1	1.1	.0	.0	.0	76.6
TOT OBS:	184														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG MEA
00003	9.6	1.9	3.8	.0	.0	.0	.0	15.4	4.8	.0	1.9	.0	.0	.0	76.9
06009	6.0	.0	.0	.0	.0	.0	.0	8.0	2.0	.0	.0	.0	.0	.0	90.0
12015	7.1	.0	.0	.0	.0	.0	.0	7.1	.0	11.9	2.4	.0	.0	.0	81.0
18021	12.5	10.4	4.2	.0	.0	.0	.0	29.0	4.2	20.8	.0	.0	.0	.0	56.3
TOT PCT	8.9	3.1	2.6	.0	.0	.0	.0	14.1	3.1	7.8	1.0	.0	.0	.0	76.0
TOT OBS:	192														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.7	5.2	1.3	.2	.0	.0		8.4	7.1	7.6	14.3	8.8	12.0	6.1	21.4	8.4	7.4	
NE	1.3	2.6	.3	.0	.0	.0		4.2	3.7	4.1	14.3	5.4	2.1	5.8	.0	3.0	4.2	
E	1.2	1.6	.2	.0	.0	.0		2.9	4.9	8.0	.0	2.1	1.7	1.8	.0	2.6	1.8	
SE	1.4	3.5	.6	.0	.0	.0		5.5	5.9	6.4	.0	6.0	3.1	4.4	.0	6.5	5.8	
S	2.1	3.4	.4	.1	.0	.0		6.1	5.7	5.5	.0	3.9	5.5	9.0	28.6	7.7	5.8	
SW	2.3	7.5	2.1	.2	.0	.0		12.3	7.6	11.1	.0	12.1	13.4	14.3	14.3	11.1	12.9	
W	1.9	13.7	6.7	1.7	.0	.0		23.9	9.9	18.9	57.1	23.7	28.4	23.7	14.3	28.8	23.7	
NW	2.5	14.4	10.6	2.5	.1	.0		30.1	10.8	34.1	14.3	31.4	31.8	26.0	21.4	27.4	30.5	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	6.4							6.4	.0	4.3	.0	6.7	4.1	8.9	.0	8.8	7.9	
TOT OBS	249	625	764	56	1	0	1195		8.2	187	7	284	146	169	7	205	190	
TOT PCT	20.8	52.3	22.1	4.7	.1	.0	100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	5.1	2.9	.3	.1	.0			8.4	7.1	7.9	9.9	6.7	7.6	
NE	3.1	1.1	.1	.0	.0			4.3	5.7	4.5	4.2	5.5	3.6	
E	2.4	.4	.1	.0	.0			2.9	4.9	7.7	2.0	1.7	2.2	
SE	3.8	1.6	.0	.0	.0			5.5	5.9	6.2	5.0	4.3	6.1	
S	4.1	1.8	.1	.0	.0			6.1	5.7	5.3	4.4	9.8	6.6	
SW	6.1	5.4	.9	.0	.0			12.3	7.6	10.7	12.5	14.3	12.0	
W	8.5	11.7	3.5	.2	.0			23.9	9.9	20.2	24.6	23.3	23.3	
NW	9.7	14.5	5.4	.5	.1			30.1	10.8	34.4	31.6	25.9	28.9	
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	
CALM	6.4							6.4	.0	4.1	5.8	8.5	7.3	
TOT OBS	589	470	126	9	1	1195			8.2	194	430	176	295	
TOT PCT	49.3	39.3	10.5	.8	.1	100.0				100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1979-1973  
(OVER-ALL) 1955-1973

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000Z	4.1	20.1	50.5	20.6	4.1	.5	.0	8.2	100.0	194
0600Z	5.8	12.3	54.9	22.6	4.4	.0	.0	8.3	100.0	430
1200Z	8.5	18.2	50.6	19.3	3.4	.0	.0	7.4	100.0	176
1800Z	7.3	12.2	51.1	23.5	5.8	.0	.0	8.5	100.0	395
TOT	77	172	625	264	56	1	0	8.2		1195
PCT	6.4	14.4	52.3	22.1	4.7	.1	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

BY WIND DIRECTION					
WIND DIR	0-2	3-4	5-7	8 & 6	TOTAL CLOUD COVER
				0BS	
N	1.2	1.8	3.0	4.0	5.9
NE	.0	1.8	4.0	1.5	5.8
E	.0	.4	1.2	.0	5.1
SE	1.2	1.2	1.2	.3	4.3
S	.9	1.8	2.1	1.8	5.0
SW	.3	1.8	6.4	6.7	6.6
W	1.2	2.4	5.8	7.6	6.4
NW	.0	2.7	11.6	15.9	6.8
VAR	.0	.0	.0	.0	.0
CALM	.0	3.7	2.4	1.2	4.8
TOT OBS	4	15	31	32	82
TOT PCT	4.9	18.3	37.8	59.0	100.0

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3999	4999	6499	7999			
.0	.0	.0	.0	1.8	.0	.0	.0	.0	.0	8.2	
.0	.0	.0	.0	.3	1.2	.0	.0	.0	.0	5.8	
.0	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.9	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.7	
.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	4.9	
.0	.0	1.2	2.4	1.8	1.2	.0	.0	.0	.0	8.5	
.0	.0	.0	1.2	1.8	3.7	.0	.0	.0	.0	10.4	
.0	.0	.0	2.4	6.7	2.4	1.2	.0	.0	.0	17.4	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	6.1	
.0	.0	1	6	12	7	1	0	1	0	54	82
.0	.0	1.2	7.3	14.6	8.5	1.2	.0	1.2	.0	65.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.2	1.2	1.2	1.2	1.2		1.2	1.2
>5000	1.2	1.2	1.2	1.2	1.2		1.2	1.2
>3500	2.4	2.4	2.4	2.4	2.4		2.4	2.4
>2000	8.3	8.3	9.5	9.5	9.5		9.5	9.5
>1000	21.4	22.6	23.8	23.8	23.8		23.8	23.8
>600	27.4	29.8	31.0	31.0	31.0		31.0	31.0
>300	27.4	31.0	32.1	32.1	32.1		32.1	32.1
>150	27.4	31.0	32.1	32.1	32.1		32.1	32.1
>0	27.4	31.0	32.1	32.1	32.1		32.1	32.1
TOTAL	29	26	27	27	27		27	27

TOTAL NUMBER OF OBS: 84

PCT FREQ NH <5/8: 67.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	9	TOTAL OBS
1.1	14.0	15.1	23.7	9.7	7.5	5.4	6.5	17.2	.0	93

PERIOD: (PRIMARY) 1879-1973  
(OVER-ALL) 1855-1973

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	1.1	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	1.6	.0
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	.0
5<10	PCP	1.0	.0	.0	.0	.0	1.6	3.3	2.3	.0	.0	8.2	.0
	NO PCP	2.2	.0	.0	.0	.4	1.8	7.6	5.3	.0	.0	15.8	.0
	TOT %	3.1	.0	.0	.0	.4	3.4	8.9	7.7	.0	.0	24.0	.0
10+	PCP	.0	.0	.0	.5	.0	.5	.5	1.1	.0	.0	2.7	.0
	NO PCP	6.3	3.6	1.5	3.7	5.3	10.8	17.3	17.6	.0	3.3	69.4	.0
	TOT %	6.3	3.6	1.5	4.2	5.3	11.3	17.9	18.7	.0	3.3	72.1	.0
TOT OBS													
TOT PCT													
		9.4	4.6	1.5	4.2	5.7	15.9	27.9	28.0	.0	3.3	100.0	193

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.1	.1	.3	.0	.0	.0	.5	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0
	TOT %	.0	.0	.0	.0	.1	.1	.3	.8	.0	.0	1.3	.0
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.3	.0	.0	.0	.3	.3	.3	.0	.0	1.1	.0
	11-21	.1	.0	.0	.0	.0	.0	.9	1.1	.0	.0	2.1	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3	.0
	TOT %	.1	.3	.0	.0	.0	.3	1.2	1.6	.0	.0	3.4	.0
5<10	0-3	.4	.3	.0	.0	.0	.0	.5	.5	.0	.5	2.6	.0
	4-10	1.3	.3	.0	.1	.6	2.6	3.6	2.9	.0	.0	11.3	.0
	11-21	.4	.0	.0	.0	.0	.9	2.2	2.0	.0	.0	5.5	.0
	22+	.0	.0	.0	.0	.0	.0	.4	.1	.0	.0	.5	.0
	TOT %	2.0	.5	.0	.1	.6	3.5	7.2	5.5	.0	.5	20.1	.0
10+	0-3	.7	.9	.4	.8	1.6	2.2	1.2	1.2	.0	5.0	14.0	.0
	4-10	5.3	1.8	.9	2.3	3.1	7.3	12.5	13.9	.0	.0	47.2	.0
	11-21	.1	.0	.0	.6	.1	1.1	4.7	7.2	.0	.0	13.2	.0
	22+	.2	.1	.0	.0	.0	.0	.1	.6	.0	.0	.8	.0
	TOT %	6.3	2.8	1.3	3.1	4.8	10.8	18.5	22.6	.0	5.0	75.2	.0
TOT OBS													
TOT PCT													
		8.5	3.6	1.3	3.2	5.5	14.6	27.2	30.5	.0	5.3	100.0	279

PERIOD: (PRIMARY) 1879-1973  
(OVER-ALL) 1855-1973

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET/MH >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	7.1	17.9	14.3	3.6	.0	.0	.0	42.9	57.1	28
06009	.0	.0	5.3	5.3	21.1	.0	.0	.0	.0	.0	31.6	68.4	19
12015	.0	.0	.0	5.3	.0	5.3	.0	.0	.0	.0	10.5	89.5	19
18021	.0	.0	.0	9.5	14.3	9.5	.0	.0	4.8	.0	38.1	61.9	21
TOT	0	0	1	6	12	7	1	0	1	0	28	59	87
PCT	.0	.0	1.1	6.9	13.8	8.0	1.1	.0	1.1	.0	32.2	67.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	2.4	3.6	20.5	73.5	83
06009	.0	.0	.9	4.4	15.8	78.9	114
12015	.0	.0	1.4	4.2	16.9	77.5	71
18021	.0	.0	.8	1.7	26.9	70.6	119
TOT	0	0	5	13	79	290	387
PCT	.0	.0	1.3	3.4	20.4	74.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET/MH >4/8) BY HOUR

HOUR (GMT)	<150 CEILING	<600 CEILING	<1000 CEILING	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	11.5	30.8	57.7	28
06009	.0	5.3	13.5	21.1	68.4	19
12015	.0	.0	10.5	5.3	84.2	19
18021	.0	.0	10.0	30.0	60.0	20
TOT	0	1	9	19	59	84
PCT	.0	1.2	13.7	22.6	66.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	.0	.8	.0	.0	.0	1	.8
85/89	.0	.0	.0	.8	.8	1.5	1.5	.0	6	4.5
80/84	.0	.0	.0	.0	3.0	25.0	34.1	5.3	90	68.2
75/79	.0	.0	.0	.0	1.5	15.2	9.8	.0	35	26.5
TOTAL	0	0	0	1	6	38	67	20	122	100.0
PCT	.0	.0	.0	.8	4.5	28.8	50.8	15.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
85/89	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
80/84	8.5	5.1	1.5	3.2	3.8	10.4	15.2	18.2	.0	2.3
75/79	2.7	.4	.0	.8	.8	2.8	9.3	9.3	.0	.8
TOTAL	12.7	5.5	1.5	4.0	4.4	14.0	25.2	29.7	.0	3.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	87	85	81	77	73	72	80.6	191
06009	96	90	87	82	78	74	73	82.5	423
12015	87	86	84	82	79	76	75	81.7	170
18021	89	86	84	81	77	75	73	80.3	386
TOT	96	89	86	81	77	73	72	81.4	1170

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	.0	17.1	65.9	17.1	.0	85	41
06009	.0	2.9	14.3	43.7	34.3	2.9	.0	.0	76	35
12015	.0	.0	3.4	31.0	55.2	10.3	.0	.0	82	29
18021	.0	.0	.0	24.2	45.5	30.3	.0	.0	85	33
TOT	0	1	6	40	70	21	82	138		

PERIOD: (PRIMARY) 1979-1973  
(OVER-ALL) 1855-1973

JANUARY

TABLE 17

AREA 0003 SUNDIA STRAIT  
5.65 104.7E

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
7/8	.0	.0	.0	.6	.0	1	.6	.6
4	.0	.0	.0	1.3	.6	3	.0	1.9
3	.0	.0	.6	.6	.0	2	.0	1.3
2	.0	.0	4.5	1.9	.0	10	.0	6.4
1	.0	.6	5.7	.6	.0	11	.0	7.0
0	.0	2.5	16.6	.0	.0	30	.0	19.1
-1	.0	2.5	9.6	1.3	.0	21	.0	15.4
-2	.6	7.0	11.5	.0	.0	30	.0	19.1
-3	.0	7.6	2.5	.0	.0	16	.0	10.2
-4	.0	5.7	3.2	.0	.0	14	.0	8.9
-5	.0	4.5	1.3	.0	.0	9	.0	5.7
-6	.6	2.5	.0	.0	.0	5	.0	3.2
-7/-8	.0	.6	.0	.0	.0	2	.0	1.3
-9/-10	1.9	.0	.0	.0	.0	3	.0	1.9
TOTAL	6	53	87	10	1	157	.0	157
PCT	3.8	33.8	55.4	6.4	.6	100.0		100.0

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	1.9	1.9	.0	.0	.0	.0	3.7
1-2	.0	4.6	.0	.0	.0	.0	4.6	.0	6.5	.0	.0	.0	.0	6.5
3-4	.0	3.7	.0	.0	.0	.0	3.7	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	1.4	.0	.0	1.4	.0	.0	.0	.5	.0	.0	.5
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	8.3	.0	1.4	.0	.0	9.7	1.9	8.3	.0	.5	.0	.0	10.6

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	3.7	.0	.0	.0	.0	3.7
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	3.7	.0	.0	.0	.0	3.7

PERIOD: (OVER-ALL) 1963-1973

JANUARY

AREA 0003 SUNDL STRAIT  
5.05 104.7E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.8	.0	.0	.0	.0	2.8	.0	1.9	.0	.0	.0	.0	.9
1-2	.0	4.6	.0	.0	.0	.0	4.6	.0	4.6	3.7	.0	.0	.0	8.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	4.2	.0	.0	.0	.0	4.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	7.4	.0	.0	.0	.0	7.4	.0	9.7	3.7	.0	.0	.0	13.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	1.9	
1-2	.0	3.2	1.9	.0	.0	.0	5.1	.0	6.0	5.6	.0	.0	.0	11.6	
3-4	.0	1.4	5.1	.0	.0	.0	6.5	1.9	1.9	9.7	.0	.0	.0	13.4	
5-6	.0	.0	1.9	.0	.0	.0	1.9	.0	.0	3.7	.0	.0	.0	3.7	
7	.0	.0	1.9	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	1.9	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	4.6	10.6	1.9	.0	.0	17.1	1.9	7.7	19.6	.0	.0	.0	30.8	92.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	10.9	7.3	.0	.0	.0	.0	18.2	
1-2	.0	32.7	10.9	.0	.0	.0	43.6	
3-4	1.8	10.9	14.5	.0	.0	.0	27.3	
5-6	.0	.0	5.5	1.8	.0	.0	7.3	
7	.0	.0	1.8	.0	.0	.0	1.8	
8-9	.0	.0	.0	1.8	.0	.0	1.8	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	12.7	50.9	32.7	3.6	.0	.0	100.0	55

PERIOD: (OVER-ALL) 1949-1973

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	7.6	27.8	26.6	2.5	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	52	2
6-7	.0	2.5	6.3	1.3	2.5	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	4
8-9	.0	.0	2.5	.0	.0	.0	2.5	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	7
10-11	.0	1.3	1.3	3.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	4
12-13	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	3
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDEX	3.8	.0	1.3	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	3
TOTAL	9	25	31	6	3	1	3	1	0	0	0	0	0	0	0	0	0	0	0	79	3
PCT	11.4	31.6	39.2	7.6	3.8	1.3	3.8	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	



## FEBRUARY

PERIOD: (PRIMARY) 1878-1973  
(OVER-ALL) 1859-1973

AREA 0003 SUNDA STRAIT  
5.65 104.7E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG NO PCPN	FGG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
N	5.7	10.0	.0	.0	.0	.0	.0	15.7	5.7	10.0	.0	.0	.0	74.3
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	20.0	.0	.0	.0	.0	.0	.0	20.0	20.0	20.0	.0	.0	.0	40.0
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SW	13.6	.0	.0	.0	.0	.0	.0	13.6	.0	1.7	.0	.0	.0	84.7
W	9.8	7.7	.0	.0	.0	.0	.0	17.5	2.8	4.9	.0	.0	.0	77.6
NW	9.7	3.2	.0	.0	.0	.0	.0	13.0	4.3	9.2	.0	.0	.0	73.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	7.1	14.3	.0	.0	.0	.0	.0	21.4	7.1	28.6	.0	.0	.0	42.9
TOT PCT	8.8	5.4	.0	.0	.0	.0	.0	14.3	4.1	3.8	.0	.0	.0	74.1
TOT OBS:	147													

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG NO PCPN	FGG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
00003	13.8	6.9	.0	.0	.0	.0	.0	20.7	3.4	10.3	.0	.0	.0	65.5
06009	4.4	6.7	.0	.0	.0	.0	.0	11.1	.0	.0	.0	.0	.0	88.9
12015	.0	2.6	.0	.0	.0	.0	.0	2.6	5.3	7.9	.0	.0	.0	84.2
18021	16.7	4.8	.0	.0	.0	.0	.0	21.4	7.1	16.7	.0	.0	.0	59.5
TOT PCT	8.4	5.2	.0	.0	.0	.0	.0	13.6	9.9	8.4	.0	.0	.0	75.3
TOT OBS:	154													

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	1.5	5.9	1.9	.5	.0	.0	9.8	8.6	13.4	12.5	9.3	7.3	8.8	.0	10.1	9.8		
NE	.9	3.8	.4	.0	.0	.0	5.0	6.1	4.1	6.3	7.5	6.1	4.1	.0	4.4	3.1		
E	1.6	2.4	.4	.0	.0	.0	4.5	5.3	5.3	18.8	5.3	2.3	6.2	.0	1.7	5.3		
SE	1.4	2.8	.5	.0	.0	.0	4.7	5.9	5.6	.0	3.8	6.1	4.5	.0	4.6	4.5		
S	1.2	2.3	.4	.0	.0	.0	3.8	5.4	2.9	.0	2.7	6.5	2.9	.0	4.1	5.0		
SW	1.2	6.2	2.0	.1	.0	.0	9.4	7.6	4.3	12.5	8.1	11.1	15.5	.0	9.9	9.2		
W	2.6	12.6	5.7	1.7	.2	.0	22.8	10.0	20.4	37.5	22.0	27.5	25.0	.0	20.4	23.5		
NW	2.4	15.9	10.7	2.6	.2	.0	31.8	10.9	38.7	12.5	33.7	30.2	24.5	96.7	31.1	30.7		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	8.2						8.2	.0	4.3	.0	7.6	3.1	8.5	33.3	13.7	8.9		
TOT OBS	238	586	248	55	5	0	1132		170	4	275	131	165	3	205	179		
TOT PCT	21.0	51.8	21.9	4.9	.4	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	4.3	4.5	1.0	.0	.0		9.8	8.6	13.4	8.6	8.6	10.0	
NE	3.9	1.5	.0	.0	.0		5.0	6.1	4.2	7.0	4.0	3.8	
E	3.3	1.1	.0	.0	.0		4.5	5.3	5.6	4.3	6.1	3.4	
SE	3.2	1.4	.1	.0	.0		4.7	5.9	5.5	4.6	4.5	4.6	
S	2.9	.8	.1	.0	.0		3.8	5.4	2.9	3.9	2.8	4.6	
SW	5.2	3.9	.3	.0	.0		9.4	7.6	4.5	9.1	15.2	9.6	
W	7.9	11.4	3.1	.3	.1		22.8	10.0	20.8	23.8	24.6	21.8	
NW	9.5	15.8	5.8	.7	.0		31.8	10.9	38.1	32.6	25.3	30.9	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	8.2						8.2	.0	5.2	6.2	8.9	11.5	
TOT OBS	563	458	118	12	1	1132		8.3	174	406	168	384	
TOT PCT	48.0	40.5	10.4	1.1	.1		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1978-1973  
(COVER-ALL) 1955-1973

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	5.2	12.6	50.6	24.7	6.3	.6	.0	9.1	100.0	174
06009	6.2	14.3	51.0	23.2	5.2	.2	.0	8.5	100.0	406
12015	8.9	11.3	53.6	22.6	3.6	.0	.0	8.1	100.0	168
18021	11.5	12.0	52.3	19.0	4.4	.8	.0	7.9	100.0	384
TOT	93	145	586	248	55	5	0	8.3		1132
PCT	8.2	12.8	51.8	21.9	4.9	.4	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-10	TOTAL CLOUD COVER	MEAN CLOUD COVER
N	.0	2.5	5.7	6.2	6.5	
NE	.0	2.5	1.1	.0	3.9	
E	.0	2.0	1.1	1.1	4.6	
SE	.0	1.1	.0	2.2	6.6	
S	1.1	.0	2.0	.0	4.8	
SW	.0	1.7	4.8	2.0	5.9	
W	.0	1.7	10.7	8.4	6.6	
NW	.0	3.1	13.2	13.8	6.8	
VAR	.0	.0	.0	.0	.0	
CALM	3.4	3.4	.0	5.6	5.0	
TOT OBS	4	16	34	35	6.2	
TOT PCT	4.5	18.0	39.2	39.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3999	4999	5499	7999			
.0	.0	.0	2.0	2.2	1.1	2.0	1.1	.0	.0	5.6	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.7	
.0	.0	.0	.0	1.1	.0	1.1	.0	.0	.0	2.0	
.0	.0	.0	.0	.0	.0	1.1	.0	.0	.0	2.2	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	
.0	.0	.0	.0	1.7	.3	.0	.0	.0	.0	6.5	
.0	.0	.0	3.1	5.1	3.1	.0	.0	.0	.0	9.6	
.0	.0	.0	2.8	4.5	1.4	2.5	.0	.0	.0	18.8	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	1.1	2.2	1.1	.0	.0	.0	.0	7.9	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.2	89
.0	.0	.0	9.0	16.9	7.9	6.7	1.1	.0	.0	58.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NH) = OR >1	= OR >1/2	= OR >1/4	= OR >5000	= OR >0
= OR >6500	.0	.0	.0	.0	.0	.0	.0	.0
= OR >5000	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
= OR >3500	5.9	8.8	8.8	8.8	8.8	8.8	8.8	8.8
= OR >2000	11.0	16.5	16.5	16.5	16.5	16.5	16.5	16.5
= OR >1000	23.1	30.8	33.0	33.0	33.0	33.0	33.0	33.0
= OR >600	30.8	39.6	41.8	41.8	41.8	41.8	42.9	42.9
= OR >300	30.8	39.6	41.8	41.8	41.8	41.8	42.9	42.9
= OR >150	30.8	39.6	41.8	41.8	41.8	41.8	42.9	42.9
= OR >0	30.8	39.6	41.8	41.8	41.8	41.8	42.9	42.9
TOTAL	28	36	38	38	38	38	39	39

TOTAL NUMBER OF OBS: 91

PCT FREQ NH <5/8: 57.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
1.0	19.3	16.3	19.4	6.1	8.2	10.2	8.2	15.3	.0	98

PERIOD: (PRIMARY) 1878-1973  
(OVER-ALL) 1855-1973

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.7	.0	.0	.0	.7	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.7	.0	.0	.0	.7	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.7	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.7	
2<5	PCP	.0	.0	.0	.0	.0	.3	.3	.7	.0	.0	1.4	
	NO PCP	.7	.0	.0	.0	.0	.7	.7	.0	.0	.0	2.0	
	TOT %	.7	.0	.0	.0	.0	1.0	1.0	.7	.0	.0	3.4	
5<10	PCP	.7	.0	.0	.0	.0	.0	2.2	3.2	.0	1.4	7.5	
	NO PCP	3.4	2.7	.0	.7	.7	1.0	3.9	7.3	.0	2.0	21.8	
	TOT %	4.1	2.7	.0	.7	.7	1.0	6.1	10.5	.0	3.4	29.3	
10+	PCP	1.2	.0	.0	.0	.0	1.0	1.0	.2	.0	.7	4.1	
	NO PCP	6.0	1.0	3.1	2.0	1.9	7.0	15.5	20.1	.0	5.4	61.9	
	TOT %	7.1	1.0	3.1	2.0	1.9	8.0	16.5	20.2	.0	6.1	66.0	
TOT OBS		11.9	3.7	3.1	3.4	2.6	10.0	24.3	31.5	.0	9.5	100.0	147
TOT PCT													

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.3	.2	.5	.0	.0	.0	.9	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.3	.2	.5	.0	.0	.0	.9	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.3	.0	.0	.3	.0	.2	.2	.3	.0	.0	1.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.3	.0	.0	.3	.0	.2	.2	.3	.0	.0	1.2	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.3	.0	.0	.0	.0	.3	.3	.3	.0	.0	1.5	
	11-21	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.3	.3	.0	.0	.6	
	TOT %	.3	.0	.0	.0	.0	.6	.8	.6	.0	.0	2.4	
5<10	0-3	.0	.3	.0	.0	.0	.0	.9	.9	.0	1.5	3.6	
	4-10	2.1	.9	.0	.3	.3	.6	2.0	3.4	.0	.0	9.7	
	11-21	.3	.0	.0	.0	.0	.0	1.0	2.9	.0	.0	4.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	2.4	1.2	.0	.3	.3	.6	3.9	7.3	.0	1.5	17.5	
10+	0-3	1.2	.5	.8	1.2	.8	1.1	1.6	2.6	.0	9.1	18.7	
	4-10	4.5	2.0	2.3	1.8	1.7	6.0	10.2	16.2	.0	.0	44.7	
	11-21	.8	.3	.0	.0	.0	1.7	4.5	6.9	.0	.0	14.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3	
	TOT %	6.5	2.7	3.0	3.0	2.5	8.8	16.2	26.1	.0	9.1	77.9	
TOT OBS		9.7	3.9	3.0	3.6	3.1	10.3	21.9	34.2	.0	10.6	100.0	331
TOT PCT													

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PERIOD: (PRIMARY) 1878-1973  
(OVER-ALL) 1855-1973

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/3) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	8.3	12.5	4.2	16.7	.0	.0	.0	41.7	58.3	24
06009	.0	.0	.0	8.3	20.8	.0	.0	.0	.0	.0	29.2	70.8	24
12015	.0	.0	.0	11.3	7.7	15.4	7.7	.0	.0	.0	42.3	57.7	26
18021	.0	.0	.0	9.1	22.7	9.1	4.5	4.5	.0	.0	50.0	50.0	22
TOT	0	0	0	9	15	7	7	1	0	0	39	57	96
PCT	.0	.0	.0	9.4	15.6	7.3	7.3	1.0	.0	.0	40.6	59.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	1.6	.0	3.2	1.6	17.7	75.8	62
06009	.0	.0	.0	1.0	18.8	80.2	101
12015	1.6	.0	1.6	4.8	15.9	76.2	83
18021	.9	.0	.9	2.7	18.6	76.6	112
TOT	3	0	4	8	61	262	338
PCT	.9	.0	1.2	2.4	18.0	77.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 ANY 5+	TOTAL OBS
00003	.0	.0	14.3	33.3	52.4	21
06009	.0	.0	8.3	20.8	70.8	24
12015	.0	4.0	16.0	28.0	56.0	25
18021	.0	.0	9.5	42.9	47.6	21
TOT	0	1	11	28	52	91
PCT	.0	1.1	12.1	30.8	57.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.0	.0	.0	.0	1	.9
85/89	.0	.0	.0	.0	1.8	1.8	3.6	.9	9	8.1
80/84	.0	.0	.0	.0	.0	29.7	35.1	5.4	78	70.3
75/79	.0	.0	.0	.0	.0	.9	10.8	9.0	23	20.7
TOTAL	0	0	0	0	?	37	55	17	111	100.0
PCT	.0	.0	.0	.0	1.8	33.3	49.5	15.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.2	.7	.0	.0	.0
.9	.5	1.4	.0	.0	1.8	2.7	.0	.0	.9
6.3	3.6	1.8	3.6	2.5	7.2	16.2	20.9	.0	8.1
4.7	.9	.0	.9	.9	2.0	4.3	7.0	.0	.0
11.9	5.0	3.2	4.5	3.4	11.3	23.9	27.9	.0	9.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	87	85	84	81	77	75	74	80.7	170
06009	91	90	87	83	78	75	74	82.7	392
12015	88	87	86	82	78	75	73	81.8	169
18021	87	85	84	81	77	75	73	80.6	378
TOT	91	89	86	82	77	75	73	81.5	1109

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	.0	18.2	63.6	18.2	85	22	22
06009	.0	.0	.0	5.9	50.0	35.3	8.8	79	34	34
12015	.0	.0	.0	.0	35.7	57.1	7.1	82	28	28
18021	.0	.0	.0	.0	20.7	51.7	27.6	85	29	29
TOT	0	0	2	37	57	17	83	113		

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PERIOD: (PRIMARY) 1878-1973  
(OVER-ALL) 1855-1973

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TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	WD FOG
6	.0	.0	.0	.0	.8	1	.0	.8
4	.0	.0	.8	.8	.8	3	.0	2.3
3	.0	.0	1.6	.8	.8	4	.0	3.1
2	.0	.0	2.3	1.6	.0	5	.0	3.9
1	.0	.0	5.5	2.3	.0	10	.0	7.8
0	.0	.9	18.8	.8	.0	26	.0	20.3
-1	.0	6.3	18.0	.0	.0	31	.0	24.2
-2	.0	3.9	8.6	.0	.0	16	.0	14.5
-3	.0	3.9	3.9	.0	.0	10	.0	7.8
-4	2.3	4.7	2.3	.0	.0	12	.0	9.4
-5	.0	3.9	.0	.0	.0	6	.0	4.7
-6	.0	1.6	.0	.0	.0	2	.0	1.6
-7/-8	.0	.8	.8	.0	.0	2	.0	1.6
TOTAL	4	23	80	8	3	128	0	128
PCT	3.1	23.8	62.5	6.3	2.3	100.0		100.0

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N							NE							
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.0	.0	.0	.0	.0	2.0	.0	2.0	.0	.0	.0	.0	2.0
1-2	.0	9.0	.0	.0	.0	.0	9.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	2.0	1.5	.0	.0	.0	3.5	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	1.5	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	13.0	2.0	.0	.0	.0	16.0	.0	2.0	.0	.0	.0	.0	2.0

E							SE							
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	2.0
1-2	.0	4.0	.0	.0	.0	.0	4.0	.0	2.0	.0	.0	.0	.0	2.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.0	.0	.0	.0	.0	4.0	2.0	2.0	.0	.0	.0	.0	4.0

PERIOD: (OVER-ALL) 1963-1973

FEBRUARY

TABLE 18 (CONT)

AREA 0303 SUNDIA STRAIT  
5.05 104.7"

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	3.5	2.0	.0	.0	.0	5.5	.0	9.0	.0	.0	.0	.0	7.0	.0
3-4	.0	7.5	7.0	.0	.0	.0	14.5	.0	4.0	3.0	.0	.0	.0	7.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	4.0	2.5	.0	.0	.0	6.5	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	2.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	11.0	9.0	.0	.0	.0	20.0	.0	19.0	7.5	.0	.0	.0	26.5	46.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	18.0	5.0	.0	.0	.0	.0	24.0	.0
1-2	.0	30.0	4.0	.0	.0	.0	34.0	.0
3-4	.0	16.0	16.0	.0	.0	.0	32.0	.0
5-6	.0	4.0	4.0	.0	.0	.0	8.0	.0
7	.0	.0	2.0	.0	.0	.0	2.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	18.0	56.0	26.0	.0	.0	.0	100.0	50

PERIOD: (OVER-ALL) 1949-1973

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87	MEAN HGT
<6	6.8	16.4	16.4	6.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	34
6-7	.0	.0	5.5	6.8	2.7	2.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5
8-9	.0	.0	1.4	4.1	1.4	2.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7
10-11	.0	.0	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6
12-13	.0	.0	2.7	.0	2.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2
>13	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5
INDEX	13.7	2.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
TOTAL	15	14	19	14	6	4	1	0	0	0	0	0	0	0	0	0	0	0	0	12
PCT	20.5	19.2	26.0	19.2	8.2	5.5	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	73
																				100.0

PERIOD: (PRIMARY) 1870-1969  
(OVER-ALL) 1870-1969

MARCH

AREA 0003 SUNDIA STRAIT  
5.05 104.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WFA
	RAIN	RAIN	DRZL	FRZG	SNOW	OTHER	MAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR	FOG	FUG MD	SMOKE	SPRAY	
	MM	MM	MM	PCPN	PCPN	PCPN	PCPN			LTNG	PCPN	PCPN	HAZE	BLWG DUST	
N	8.1	3.0	2.0	.0	.0	.0	.0	13.1	.0	9.1	4.0	.0	.0	.0	73.7
NE	5.6	5.6	.0	.0	.0	.0	.0	11.3	5.6	19.7	.0	.0	.0	.0	63.4
E	.0	.0	10.5	.0	.0	.0	.0	10.5	.0	.0	.0	.0	.0	.0	89.5
SE	4.4	.0	.0	.0	.0	.0	.0	4.4	.0	8.9	.0	.0	.0	.0	91.1
S	1.2	5.6	.0	.0	.0	.0	.0	14.1	.0	.0	2.8	.0	.0	.0	81.1
SW	5.6	6.2	.0	.0	.0	.0	.0	11.6	.0	.0	.9	.0	3.7	.0	83.7
W	5.3	5.2	.0	.0	.0	.0	.0	13.7	8.7	4.4	.0	.0	.0	.0	73.2
NW	4.7	3.6	1.2	.0	.0	.0	.0	5.9	7.1	.0	.0	.0	.0	.0	83.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	12.5	.0	.0	.0	.0	.0	17.5	.0	12.5	.0	.0	.0	.0	75.0
TOT PCT	5.4	5.0	.8	.0	.0	.0	.0	11.2	3.3	4.5	.8	.0	.8	.0	79.8
TOT OBS:	242														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WFA
	RAIN	RAIN	DRZL	FRZG	SNOW	OTHER	MAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR	FOG	FUG MD	SMOKE	SPRAY	
	MM	MM	MM	PCPN	PCPN	PCPN	PCPN			LTNG	PCPN	PCPN	HAZE	BLWG DUST	
0000	5.9	5.8	2.9	.0	.0	.0	.0	17.6	5.9	.0	.0	.0	.0	.0	76.5
0600	3.3	1.7	.0	.0	.0	.0	.0	5.0	.0	.0	1.7	.0	.0	.0	93.3
1200	3.3	4.9	.0	.0	.0	.0	.0	8.2	1.6	4.9	.0	.0	1.6	.0	83.6
1800	5.2	2.7	.0	.0	.0	.0	.0	11.0	4.1	11.0	2.7	.0	1.4	.0	71.2
TOT PCT	5.3	4.6	.8	.0	.0	.0	.0	10.7	3.1	4.2	1.1	.0	.8	.0	80.5
TOT OBS:	262														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18
N	1.6	5.2	1.7	.0	.0	.0		8.5	7.5	9.5	5.6	8.9	8.0	7.9	16.7	8.3	8.1
NE	.8	3.9	1.0	.0	.0	.0		5.7	7.1	5.7	11.1	8.8	4.3	5.6	16.7	4.1	3.2
E	1.4	4.3	1.3	.1	.0	.0		7.1	7.3	8.5	.0	9.2	2.9	6.4	.0	6.4	7.1
SE	2.1	6.1	1.1	.1	.0	.0		9.5	6.6	7.8	22.2	9.0	7.2	12.8	8.3	7.5	12.0
S	1.1	3.7	.5	.0	.0	.0		5.3	6.5	6.3	.0	3.4	8.0	4.5	8.3	6.5	5.1
SW	1.9	7.2	2.7	.5	.0	.0		12.3	8.7	15.4	19.4	8.9	11.2	12.6	8.3	15.0	12.3
W	1.7	10.9	5.8	1.3	.0	.0		19.7	10.0	16.3	30.6	16.9	29.7	22.7	41.7	19.3	17.2
NW	1.8	17.7	7.4	1.3	.1	.0		23.4	10.1	25.8	11.1	23.6	26.4	20.9	.0	19.4	27.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	8.4							8.4	.0	4.7	.0	11.3	2.2	6.6	.0	13.4	7.8
TOT OBS	281	732	790	48	2	0	1353		7.9	193	9	3.6	138	211	6	246	204
TOT PCT	20.8	54.1	21.4	3.5	.1	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	03	09	15
N	4.5	3.6	.4	.0	.0		8.5	7.5	9.3	8.6	8.2
NE	3.1	2.5	.1	.0	.0		5.7	7.1	5.9	7.5	3.7
E	4.0	2.7	.4	.0	.0		7.1	7.3	8.2	7.4	6.2
SE	6.0	3.1	.4	.0	.0		9.5	6.6	8.4	8.5	12.7
S	3.2	1.9	.1	.0	.0		5.3	6.5	6.1	4.8	4.6
SW	5.3	5.8	1.0	.0	.0		12.3	8.7	15.6	9.6	12.4
W	7.1	9.6	2.9	.1	.0		19.7	10.0	17.0	20.6	23.3
NW	7.9	12.0	3.1	.2	.1		23.4	10.1	25.1	24.4	20.3
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0
CALM	8.4						8.4	.0	4.5	8.7	6.5
TOT OBS	671	557	115	8	2	1353		7.9	202	484	217
TOT PCT	49.6	41.2	8.5	.6	.1		100.0		100.0	100.0	100.0

PERIOD: (PRIMARY) 1879-1969  
(OVER-ALL) 1855-1969

MARCH

AREA 0003 SUNDA STRAIT  
5.65 104.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (CPT)

MO/H	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	4.5	13.4	55.9	21.8	4.5	.0	.0	.0	8.2	100.0	202
04009	8.7	14.0	54.8	18.4	3.9	.2	.0	.0	7.7	100.0	484
12615	6.5	12.0	57.1	21.7	2.8	.0	.0	.0	8.0	100.0	217
18221	10.9	10.2	51.1	24.4	3.1	.2	.0	.0	8.1	100.0	450
TOT	114	167	732	290	48	2	.0	.0	7.9		1353
PCT	8.4	12.3	54.1	21.4	3.5	.1	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & NBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	2.4	6.9	.8		5.3
NE	3.4	1.8	1.8	1.6		4.0
E	.0	1.4	2.0	.8		5.3
SE	4.0	1.6	3.8	1.8		4.2
S	.8	1.2	2.6	.0		4.4
SW	4.8	6.0	6.7	1.8		4.1
W	.0	1.4	11.1	5.4		6.6
NW	.8	4.8	8.7	5.6		5.9
VAR	.0	.0	.0	.0		.0
CALM	1.0	.8	.8	.8		4.6
TOT OBS	20	27	56	23	126	5.1
TOT PCT	15.9	21.4	44.4	18.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 290	300 499	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY MGT	TOTAL OBS
N	.0	.0	.0	.8	1.6	.6	.0	.0	.0	.0	.0	7.7
NE	.0	.0	.0	.8	1.6	.0	.8	.0	.0	.0	.0	5.4
E	.0	.0	.0	.0	.0	.6	.8	.0	.0	.0	.0	2.6
SE	.0	.0	.0	.0	1.6	.2	.0	.0	.0	.0	.0	9.3
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.2
SW	.0	.0	.0	.8	2.2	3.2	.4	.0	.0	.0	.0	12.7
W	.8	.0	.0	1.6	4.8	2.2	1.4	.0	.0	.0	.0	7.3
NW	.0	.0	.0	3.2	3.4	1.2	.0	.0	.0	.0	.0	12.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.2
TOT OBS	1	0	0	9	19	12	5	0	0	0	0	80
TOT PCT	.8	.0	.0	7.1	15.1	9.5	4.0	.0	.0	.0	.0	63.5

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				VSBY (NM)				OR >0
	OR >10	OR >5	OR >2	OR >1	OR >1/2	OR >1/4	OR >50YD	OR >0	
OR >6500	.0	.0	.0	.0	.0	.0	.0	.0	.0
OR >5000	.0	.0	.0	.0	.0	.0	.0	.0	.0
OR >3700	2.3	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
OR >2000	8.4	12.2	13.0	13.7	13.7	13.7	13.7	13.7	13.7
OR >1000	14.5	24.4	27.3	28.2	28.2	28.2	28.2	28.2	28.2
OR >600	17.6	29.8	34.4	35.1	35.1	35.1	35.1	35.1	35.1
OR >300	17.6	29.8	34.4	35.1	35.1	35.1	35.1	35.1	35.1
OR >150	17.6	29.8	34.4	35.1	35.1	35.1	35.1	35.1	35.1
OR >0	17.6	29.8	35.1	35.9	35.9	35.9	35.9	35.9	35.9
TOTAL	23	39	46	47	47	47	47	47	47

TOTAL NUMBER OF OBS: 131

PCT FREQ NH <5/8: 64.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	2.1	12.1	29.6	16.4	10.7	10.0	9.3	4.3	10.7	.7	140



PERIOD: (PRIMARY) 1870-1969  
(OVER-ALL) 1855-1969

MARCH

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5 45 104.0E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.2	.2	.4	.0	.0	.0	.3	.9
	NO PCP	.0	.0	.0	.0	.0	.8	.4	.2	.0	.0	1.7	
	TOT %	.0	.0	.0	.0	.2	1.0	1.0	.2	.0	.0	2.5	
2<5	PCP	.3	.4	.0	.0	.4	.4	.4	.1	.0	.0	2.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.4	.8	.0	.0	1.2	
	TOT %	.3	.4	.0	.0	.4	.4	.8	.9	.0	.0	3.3	
5<10	PCP	.8	.4	.4	.4	.4	2.0	1.3	1.2	.0	.4	7.4	
	NO PCP	3.1	2.1	1.4	1.0	2.8	6.7	5.0	4.8	.0	.0	26.9	
	TOT %	3.9	2.5	1.9	1.4	3.2	8.7	6.3	6.0	.0	.4	34.3	
10+	PCP	.2	.0	.0	.0	.0	.0	.4	.2	.0	.0	.8	
	NO PCP	3.8	4.4	2.1	7.9	3.5	12.1	10.3	10.1	.0	2.9	59.1	
	TOT %	4.0	4.4	2.1	7.9	3.5	12.1	10.7	10.3	.0	2.9	59.9	
TOT OBS													242
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4	
	4-10	.0	.0	.0	.0	.1	.2	.7	.3	.0	.0	1.3	
	11-21	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.7	.9	.3	.0	.0	2.0	
2<5	0-3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	4-10	.3	.0	.0	.0	.2	.1	.8	.6	.0	.0	2.0	
	11-21	.0	.2	.0	.0	.0	.4	.0	.0	.0	.0	.7	
	22+	.0	.0	.0	.0	.0	.0	.2	.2	.0	.0	.4	
	TOT %	.5	.2	.0	.0	.2	.5	1.0	.8	.0	.0	3.3	
5<10	0-3	.0	.2	.4	.0	.2	.8	.3	.0	.0	.2	2.2	
	4-10	2.0	.9	.5	.4	1.1	3.0	2.4	3.9	.0	.0	14.2	
	11-21	.2	.2	.0	.3	.5	1.6	1.6	1.9	.0	.0	6.3	
	22+	.0	.0	.0	.0	.0	.3	.1	.2	.0	.0	.7	
	TOT %	2.2	1.3	1.0	.8	1.8	5.7	4.4	6.0	.0	.2	23.4	
10+	0-3	.6	.4	.4	1.8	.6	1.2	1.3	1.3	.0	4.6	12.3	
	4-10	3.7	3.0	2.5	5.0	2.8	8.0	9.8	11.4	.0	.0	46.2	
	11-21	.6	.7	.0	.4	.5	2.0	3.0	4.3	.0	.0	11.6	
	22+	.0	.0	.0	.0	.0	.7	.4	.0	.0	.0	1.1	
	TOT %	4.9	4.1	3.0	7.2	3.9	11.9	14.6	17.0	.0	4.6	71.1	
TOT OBS													457
TOT PCT													100.0

PERIOD: (PRIMARY) 1879-1969  
(OVERALL) 1855-1969

MARCH

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5.05 104.8F

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	2.1	.0	.0	8.5	17.0	10.0	9.4	.0	.0	.0	44.7	95.3	47
06009	.0	.0	.0	4.0	20.0	4.0	.0	.0	.0	.0	28.0	72.0	25
12015	.0	.0	.0	.0	11.9	9.5	4.8	.0	.0	.0	26.2	73.8	42
18021	.0	.0	.0	16.0	8.0	12.0	.0	.0	.0	.0	36.0	64.0	22
TOT	1	0	0	9	20	13	5	0	0	0	48	91	199
PCT	.7	.0	.0	6.5	14.4	9.4	3.6	.0	.0	.0	34.5	65.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2-1	1-2	2-5	5-10	10+	TOTAL OBS
00003	.0	.0	1.0	4.0	24.0	71.0	100
06009	.0	.0	.0	1.0	22.2	76.4	126
12015	.0	.0	2.1	2.1	24.3	71.3	94
18021	.0	.0	3.2	4.5	28.0	63.7	157
TOT	0	1	9	15	119	333	477
PCT	.0	.2	1.9	3.1	24.9	69.8	100.0

TABLE 12

CUMULATIVE PCT FRQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET) NM <5/8) BY HOUR

HOUR (GMT)	<150 VSBY	<1 CEILING	<1000 VSBY	<5 CEILING	1000+ VSBY	NM <5/8 AND 5+	TOTAL OBS
00003	2.2	2.2	13.3	33.3	53.3	43	43
06009	.0	.0	4.0	24.0	72.0	25	25
12015	.0	.0	7.5	20.0	72.5	40	40
18021	.0	.0	23.8	14.3	61.9	21	21
TOT	1	1	12	32	84	101	101
PCT	.8	.8	11.5	24.4	64.3	100.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	1.4	2.9	.7	.7	8	8.7
80/84	.0	.0	.0	.0	2.1	30.0	41.6	8.6	115	82.1
75/79	.0	.0	.0	.0	.0	5.7	6.4	.0	17	12.1
TOTAL	0	0	0	0	5	43	67	22	140	100.0
PCT	.0	.0	.0	.0	3.6	32.9	47.9	15.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALC
.7	.7	2.1	.7	.0	.7	.4	.4	.0	.0
11.4	7.7	3.9	8.9	7.7	17.5	12.3	10.5	.0	2.1
.5	1.4	.0	.0	1.4	2.3	3.4	2.3	.0	.7
12.7	9.8	6.1	9.6	9.1	20.5	16.1	13.2	.0	2.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	87	86	85	81	78	75	75	81.5	202
06009	93	91	89	84	79	76	73	83.8	485
12015	87	86	86	82	78	77	75	82.2	215
18021	91	86	84	81	77	75	73	81.1	445
TOT	93	90	87	82	78	75	73	82.4	1347

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	2.2	32.5	40.0	25.0	83	40		40
06009	.0	.0	8.2	44.4	38.9	8.3	79	36		36
12015	.0	.0	3.2	15.5	51.6	9.7	32	31		31
18021	.0	.0	.0	15.4	65.4	19.2	86	32		32
TOT	0	0	5	48	80	26	83	159		159

PERIOD: (PRIMARY) 1879-1969  
(OVER-ALL) 1895-1969

MARCH

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5.65 104.8F

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	>92	TOT	N FOG	W FOG
5	.0	.0	.5	.4	.5	.0	3	.0	1.4
4	.0	.0	.5	.9	.0	.5	5	.0	2.4
3	.0	.0	.5	.9	.0	.0	3	.0	1.4
2	.0	.5	.5	1.4	.0	.0	6	.0	2.8
1	.0	.5	5.7	.5	.0	.0	14	.0	6.6
0	.0	.5	13.3	2.4	.0	.0	34	.5	15.6
-1	.0	1.9	18.0	.5	.0	.0	47	.5	19.9
-2	.0	6.2	16.6	.5	.0	.0	49	.0	23.2
-3	.0	4.7	5.7	.5	.0	.0	23	.0	10.9
-4	.0	3.3	5.2	.0	.0	.0	18	.5	8.1
-5	.5	3.3	.5	.0	.0	.0	8	.0	3.5
-6	.0	.5	.0	.0	.0	.0	1	.0	.5
-7/-8	.5	1.4	.0	.0	.0	.0	4	.0	1.9
TOTAL	1	48	143	17	1	1	211	3	208
PCT	.5	22.7	67.8	8.1	.5	.5	100.0	1.4	98.6

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.6	.0	.0	.0	.0	2.6	.0	1.9	1.5	.0	.0	.0	3.4
1-2	.0	5.4	1.1	.0	.0	.0	6.7	.0	1.5	.0	.0	.0	.0	1.5
3-4	.0	.0	2.2	.0	.0	.0	2.2	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	8.2	3.4	.0	.0	.0	11.6	.0	3.4	1.5	.0	.0	.0	4.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.5	.0	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	4.9
1-2	.0	.0	.0	.0	.0	.0	.0	.0	4.5	.0	.0	.0	.0	4.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.5	.0	.0	.0	.0	1.5	.0	4.5	.0	.0	.0	.0	9.3

PERIOD (OVER-ALL) 1949-1969

MARCH

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5.65 104.8F

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL
<1	1.1	3.0	.0	.0	.0	.0	4.1	.7	7.5	.0	.0	.0	.0	7.8	
1-2	.0	3.4	.0	.0	.0	.0	3.4	1.5	11.6	3.0	.0	.0	.0	16.0	
3-4	.0	.0	1.1	.0	.0	.0	1.1	.0	.0	.7	.0	.0	.0	.7	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.1	6.3	1.1	.0	.0	.0	8.6	1.5	19.4	3.7	.0	.0	.0	24.6	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL
<1	.0	2.6	.0	.0	.0	.0	2.6	.0	3.0	.0	.0	.0	.0	3.0	
1-2	.0	7.5	.0	.0	.0	.0	7.5	.0	6.3	1.9	.0	.0	.0	8.2	
3-4	.0	.0	4.9	.0	.0	.0	4.9	.0	.0	4.5	.0	.0	.0	4.5	
5-6	.0	.0	2.7	.0	.0	.0	2.7	.0	.0	.7	.0	.0	.0	.7	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	.0	.0	1.5	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	10.1	7.1	.0	.0	.0	17.2	.0	9.3	7.1	1.5	.0	.0	17.9	75.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	10.3	22.1	1.5	.0	.0	.0	33.8	DBS
1-2	1.5	41.2	5.9	.0	.0	.0	48.5	
3-4	.0	.0	13.2	.0	.0	.0	13.2	
5-6	.0	.0	2.7	.0	.0	.0	2.7	
7	.0	.0	.0	1.5	.0	.0	1.5	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	11.8	63.2	23.5	1.5	.0	.0	100.0	66

PERIOD (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	7.5	10.8	11.4	0.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	60	2
6-7	.9	.9	7.5	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	3
7-9	.0	.0	2.8	.9	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	4
10-11	.0	.9	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	2
12-13	.0	.0	.9	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	4
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
MEAN	5.9	3.7	2.8	.7	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	26	1
TOTAL	24.3	39	27	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	167	2
PCT	24.3	39.4	25.2	12.1	1.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1981-1971  
(OVER-ALL) 1955-1971

APRIL

AREA 0003 SUNDRA STRAIT  
5.65 104.7E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHMR	DRZL	FRZG	SNOW	OTHER	MAIL	PCPN AT 05 TIME	PCPN PAST HOUR	THDR LTNG	FOG	FOG WD PCPN	HAZE	SPRAY	NO SIG
															WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.0	.0	.0	.0	90.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.9	.0	.0	.0	.0	95.1
E	3.3	3.3	.0	.0	.0	.0	.0	6.6	.0	24.0	.0	.0	.0	.0	69.4
SE	4.0	.0	.0	.0	.0	.0	.0	4.0	.0	26.7	4.0	.0	.0	.0	69.3
S	9.1	9.1	.0	.0	.0	.0	.0	18.2	.0	9.1	.0	.0	.0	.0	72.7
SW	9.0	10.1	.0	.0	.0	.0	.0	19.1	1.1	4.5	.0	.0	.0	.0	75.3
W	.0	4.1	2.7	.0	.0	.0	.0	6.8	4.1	.0	.0	.0	.0	.0	89.2
NW	9.5	.0	4.8	.0	.0	.0	.0	14.3	.0	.0	.0	.0	.0	.0	85.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	7.7	15.4	.0	.0	.0	.0	76.9
TOT PCT	4.1	3.5	.6	.0	.0	.0	.0	8.1	1.2	11.6	1.2	.0	.0	.0	78.5
TOT OBS:	172														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHMR	DRZL	FRZG	SNOW	OTHER	MAIL	PCPN AT 05 TIME	PCPN PAST HOUR	THDR LTNG	FOG	FOG WD PCPN	HAZE	SPRAY	NO SIG
															WEA
0000	4.3	6.5	2.2	.0	.0	.0	.0	13.0	2.2	3.7	.0	.0	.0	.0	76.1
0600	2.2	.0	.0	.0	.0	.0	.0	2.2	2.2	.0	.0	.0	.0	.0	95.6
1200	2.6	.0	.0	.0	.0	.0	.0	2.6	.0	12.3	5.1	.0	.0	.0	79.5
1800	8.8	7.0	.0	.0	.0	.0	.0	15.8	.0	24.6	.0	.0	.0	.0	61.4
TOT PCT	4.8	3.7	.5	.0	.0	.0	.0	9.1	1.1	12.3	1.1	.0	.0	.0	77.0
TOT OBS:	187														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	06	12	18	21			
N	1.9	3.5	.9	.0	.0	.0		6.3	6.2		6.9	6.3	7.8	8.1	5.3	20.0	4.5	4.7
NE	1.9	6.0	1.6	.2	.0	.0		9.6	7.2		10.3	.0	11.3	12.3	8.8	20.0	6.9	8.5
E	2.1	9.0	2.1	.2	.0	.0		13.3	7.2		16.3	.0	10.9	12.9	12.1	20.0	16.3	12.4
SE	3.6	11.9	3.6	.3	.0	.0		19.4	7.6		19.6	12.6	17.6	16.3	25.0	10.0	19.7	19.4
S	2.5	6.2	1.2	.0	.0	.0		9.9	6.4		12.4	21.9	8.5	11.0	9.4	30.0	7.6	11.4
SW	3.0	5.6	1.7	.0	.0	.0		10.4	6.7		7.1	34.4	7.9	8.7	14.4	.0	12.5	11.5
W	2.0	7.1	2.5	.2	.0	.0		11.9	7.9		12.4	6.3	12.2	11.7	12.4	.0	12.1	11.0
NW	1.5	6.9	2.1	.3	.2	.1		11.0	8.9		8.4	6.3	14.9	9.8	5.6	.0	10.7	13.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	8.2							8.2	.0		6.0	12.5	8.6	9.1	7.1	.0	9.6	7.8
TOT OBS	324	688	192	15	2	1	1224		6.8		182	8	306	132	170	5	228	163
TOT PCT	26.6	56.2	15.7	1.2	.2	.1	100.0				100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	4.3	1.7	.3	.0	.0		6.3	6.2	6.8	7.9	5.7	4.6
NE	5.4	2.7	.5	.0	.0		9.6	7.2	9.9	11.6	9.1	7.7
E	7.1	5.6	.7	.0	.0		13.3	7.2	15.8	11.5	12.3	14.5
SE	9.3	9.0	1.1	.0	.0		19.4	7.6	19.3	17.2	24.6	19.6
S	6.1	3.4	.4	.0	.0		9.9	6.4	12.8	9.2	10.0	9.3
SW	6.3	3.5	.6	.0	.0		10.4	6.7	8.3	8.2	14.0	12.1
W	5.6	3.5	.7	.0	.0		11.9	7.9	12.1	12.0	12.0	11.6
NW	5.6	4.1	1.0	.1	.2		11.0	8.9	8.7	13.4	5.4	11.9
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	8.2						8.2	.0	6.8	8.9	6.9	8.8
TOT OBS	109	447	63	2	3	1224		6.8	190	438	175	421
TOT PCT	97.9	36.5	5.1	.2	.2	100.0			100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1881-1971  
(OVER-ALL) 1859-1971

APRIL

AREA 0003 SUNDA STRAIT  
5.05 104.7E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+			
00003	6.3	18.9	55.3	18.9	.0	.3	.0	7.7	100.0	190
06009	8.9	16.4	57.3	15.3	1.8	.0	.2	8.8	100.0	438
12015	6.9	17.1	59.4	16.0	.6	.0	.0	6.8	100.0	175
18021	8.8	20.9	54.2	14.5	1.4	.2	.0	6.7	100.0	421
TOT	100	296	686	192	19	2	1	6.8		1224
PCT	8.2	18.5	56.2	15.7	1.2	.2	.1	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-10	TOTAL OBS	MEAN CLOUD COVER
N	.8	1.1	1.9	.0		4.5
NE	2.5	1.1	3.3	1.1		4.6
E	2.2	7.1	10.2	1.1		4.5
SE	3.3	4.9	5.8	1.1		4.3
S	3.0	2.7	4.7	2.2		5.1
SW	2.5	2.7	6.9	1.4		5.2
W	2.2	1.1	7.4	1.9		5.3
NH	.0	.0	3.8	2.2		6.5
CALM	.0	.0	.0	.0		6.5
TOT OBS	15	19	66	11	91	5.0
TOT PCT	16.5	20.9	50.5	12.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999				
N	.0	.0	.0	.0	.0	1.1	.0	.0	.0	.0	2.7	
NE	.0	.0	.0	.0	1.1	.3	1.1	.0	.0	.0	5.5	
E	.0	.0	.0	1.1	1.1	3.0	.0	.0	.0	.0	15.4	
SE	.0	.0	.0	1.1	3.3	.0	.0	.0	.0	.0	10.7	
S	.0	.0	.8	1.1	.0	.0	.0	.0	.0	.0	10.7	
SW	.0	.0	1.4	.0	2.7	1.1	.0	.0	.0	.0	8.2	
W	.0	.0	1.1	.0	2.5	1.1	.0	.0	.0	.0	8.0	
NH	.0	.0	.0	.0	2.5	1.1	.0	.0	.0	.0	2.5	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT OBS	15	19	66	11	91	2.2	.0	.0	.0	.0	4.4	
TOT PCT	.0	.0	.3	.3	14.3	9.9	1.1	.0	.0	.0	68.1	91

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.0	.0	.0	.0	.0	.0	.0	.0
>5000	.0	.0	.0	.0	.0	.0	.0	.0
>3500	.0	1.0	2.1	2.1	2.1	2.1	2.1	2.1
>2000	8.3	9.4	11.5	11.5	12.5	12.5	12.5	12.5
>1000	18.8	22.9	25.0	25.0	26.0	26.0	26.0	26.0
>600	21.9	26.0	28.1	28.1	29.2	29.2	29.2	29.2
>300	25.0	29.2	31.3	31.3	32.3	32.3	32.3	32.3
>150	25.0	29.2	31.3	31.3	32.3	32.3	32.3	32.3
>0	25.0	29.2	31.3	31.3	32.3	32.3	32.3	32.3
TOTAL	24	28	30	30	31	31	31	31

TOTAL NUMBER OF OBS: 96

PCT FREQ NH <5/8: 67.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	9	TOTAL OBS
1.9	12.6	26.2	11.7	12.6	7.8	10.7	9.7	6.8	.0	103

PERIOD: (PRIMARY) 1881-1971  
(OVER-ALL) 1855-1971

APRIL

AREA 0003 SUNDA STRAIT  
5.85 104.7E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY												
VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5<10	PCP	.0	.0	.0	.0	1.7	2.9	.7	.3	.0	.0	5.8
	NO PCP	.9	4.1	2.6	3.5	4.4	2.0	3.2	.9	.0	1.2	22.7
	TOT %	.9	4.1	2.6	4.1	6.1	4.9	3.9	1.2	.0	1.2	28.5
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2
	NO PCP	4.9	7.1	13.8	10.6	6.1	7.8	6.8	4.4	.0	6.4	68.0
	TOT %	4.9	7.1	14.4	10.6	6.7	7.8	6.8	4.4	.0	6.4	69.2
TOT OBS												
TOT PCT												
5.8 11.8 17.6 14.7 12.8 12.9 10.8 6.1 .0 7.6 100.0												

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TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY												
VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.3
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.3
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	0-3	.0	.3	.0	.0	.0	.1	.1	.0	.0	.0	.5
	4-10	.0	.3	.0	.0	.0	.3	.3	.0	.0	.0	.8
	11-21	.0	.0	.0	.0	.0	.0	.3	.5	.0	.0	.8
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.5	.0	.0	.0	.4	.6	.5	.0	.0	2.0
5<10	0-3	.3	.3	.5	.0	.4	.4	.3	.3	.0	.5	2.8
	4-10	.1	1.8	1.3	2.3	2.5	1.3	1.2	1.1	.0	.0	11.5
	11-21	.0	.3	.0	.5	.9	.4	1.0	.4	.0	.0	2.8
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.4	2.3	1.8	2.8	3.1	2.1	2.4	1.8	.0	.5	17.0
10+	0-3	1.4	1.7	.6	1.9	2.6	2.9	2.8	1.1	.0	7.5	22.6
	4-10	3.2	4.3	8.3	10.5	4.6	4.9	6.8	6.5	.0	.0	49.1
	11-21	.4	1.0	2.4	1.3	.4	1.3	1.4	.4	.0	.0	8.5
	22+	.0	.0	.0	.0	.0	.0	.1	.4	.0	.0	.5
	TOT %	5.0	7.0	11.3	13.6	7.6	9.1	11.1	8.4	.0	7.5	80.7
TOT OBS												
TOT PCT												
5.4 9.7 13.3 16.4 10.8 11.6 14.2 10.7 .0 8.0 100.0												

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APRIL

PERIOD: (PRIMARY) 1881-1971  
(OVER-ALL) 1853-1971AREA 0003 SUNDA STRAIT  
5.85 104.7E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET: 4 >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	190 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	6.5	3.2	22.6	6.5	3.2	.0	.0	.0	41.9	58.1	31
06009	.0	.0	4.3	.0	13.0	13.0	.0	.0	.0	.0	30.4	69.6	23
12015	.0	.0	.0	.0	9.1	9.1	4.5	.0	.0	.0	22.7	77.3	22
18021	.0	.0	.0	8.7	4.3	17.4	.0	.0	.0	.0	30.4	69.6	23
TOT	0	0	3	3	13	11	4	0	0	0	32	67	99
PCT	.0	.0	3.0	3.0	13.1	11.1	2.0	.0	.0	.0	22.3	67.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<3	3<10	10+	TOTAL OBS
00003	.0	1.1	.0	2.3	17.0	79.5	88
06009	.0	.0	.0	3.6	6.3	90.2	112
12015	.0	.0	.0	.0	23.3	76.7	73
18021	.0	.0	.0	2.9	22.9	74.3	140
TOT	0	1	0	10	71	331	413
PCT	.0	.2	.0	2.4	17.2	80.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	9.7	16.1	25.8	58.1	31
06009	.0	4.5	4.5	27.3	68.2	22
12015	.0	.0	.0	22.7	77.3	22
18021	.0	.0	14.3	14.3	71.4	21
TOT	0	4	9	22	65	96
PCT	.0	4.2	9.4	22.9	67.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	2.5	.0	.0	.0	3	2.5
85/89	.0	.0	.0	.0	7.5	9.3	1.7	.0	11	13.6
80/84	.0	.0	.0	.8	.0	22.9	46.6	6.8	91	77.1
75/79	.0	.0	.0	.0	.0	4.2	2.5	.0	8	6.8
TOTAL	0	0	0	1	6	38	62	11	118	100.0
PCT	.0	.0	.0	.8	5.1	32.2	52.5	9.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
1.7	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0
1.0	1.3	1.3	1.7	.8	.8	3.2	1.1	.0	3.4	.0
1.5	10.6	13.8	12.9	12.3	9.5	8.3	3.2	.0	5.1	.0
.8	.0	1.7	.8	.0	1.3	1.3	.8	.0	.0	.0
4.0	11.9	17.6	15.5	13.1	11.7	12.7	5.1	.0	8.5	.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	97	87	85	82	78	76	75	82.0	190
06009	94	92	89	84	80	76	74	84.2	423
12015	87	86	86	83	80	77	77	82.7	170
18021	90	86	85	82	78	77	75	81.7	413
TOT	97	90	87	83	79	77	74	82.8	1196

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	3.1	18.8	68.8	9.4	83	32		
06009	.0	.0	14.8	59.3	22.2	3.7	76	27		
12015	.0	3.8	.0	38.5	38.5	19.2	81	26		
18021	.0	.0	2.4	17.1	65.9	14.6	84	41		
TOT	0	1	6	39	65	19	81	126		



PERIOD: (PRIMARY) 1881-1971  
(OVER-ALL) 1855-1971

APRIL

AREA 0003 SUNDA STRAIT  
5.65 104.7E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
7/8	.0	.0	.0	.0	.0	1	.0	.0
6	.0	.0	.0	.0	1.3	2	.0	1.3
5	.0	.0	.0	.0	.0	2	.0	1.3
4	.0	.0	.0	.0	.0	1	.0	.0
3	.0	.0	.0	1.3	.0	2	.0	1.3
2	.0	.0	3.1	1.9	.0	8	.0	5.0
1	.0	.0	3.1	1.3	.0	8	.0	5.0
0	.0	.0	13.8	3.8	.0	28	.0	17.0
-1	.0	1.3	14.5	.0	.0	25	.0	15.7
-2	.0	2.5	23.9	1.9	.0	45	.0	28.3
-3	.0	1.3	8.8	.0	.0	10	.0	10.1
-4	.0	1.3	3.1	.0	.0	7	.0	3.0
-5	.0	2.5	2.5	.0	.0	8	.0	5.0
-6	.0	.0	.0	.0	.0	2	.0	1.3
-7/-8	.0	1.3	.0	.0	.0	3	.0	1.9
-9/-10	.0	.0	.0	.0	.0	1	.0	.0
TOTAL	1	19	117	18	4	159	2	137
PCT	.6	11.9	73.0	11.3	2.5	100.0	1.3	98.7

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	1.2	4.4	1.6	.0	.0	.0	7.1	.4	2.4	4.8	.0	.0	.0	7.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.4	1.6	.0	.0	.0	2.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.2	4.4	1.6	.0	.0	.0	7.1	.4	2.8	6.3	.0	.0	.0	9.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.6	.0	.0	.0	.0	1.6	.0	.0	.0	.0	.0	.0	.0
1-2	.0	9.9	3.2	.0	.0	.0	13.1	.0	10.7	.0	.0	.0	.0	10.7
3-4	.0	7.5	.0	.0	.0	.0	7.5	.0	1.6	1.6	.0	.0	.0	3.2
5-6	.0	.0	1.6	.0	.0	.0	1.6	.0	1.6	.0	.0	.0	.0	1.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	19.0	4.8	.0	.0	.0	23.8	.0	13.9	1.6	.0	.0	.0	15.5

PERIOD: (OVER-ALL) 1963-1971

APRIL

AREA 0003 SUNDA STRAIT  
5.65 104.7E

TABLE 18 (CONT)

PPT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	4.4	1.6	.0	.0	.0	.0	6.0	2.0	.8	.0	.0	.0	.0	2.8
1-2	1.6	1.2	1.2	.0	.0	.0	4.0	.0	.0	1.2	.0	.0	.0	1.2
3-4	.0	1.2	1.6	.0	.0	.0	2.8	.0	.4	3.2	.0	.0	.0	3.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	6.0	4.0	2.8	.0	.0	.0	12.7	2.0	1.2	4.4	.0	.0	.0	7.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.2	4.0	.0	.0	.0	.0	5.2	2.0	1.6	.0	.0	.0	.0	.0	3.6
1-2	.0	3.2	2.4	.0	.0	.0	5.6	.0	1.6	.0	.0	.0	.0	.0	1.6
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.2	7.1	2.4	.0	.0	.0	10.7	2.0	3.2	.0	.0	.0	.0	5.2	92.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	17.5	9.5	.0	.0	.0	.0	27.0	085
1-2	3.2	33.3	14.3	.0	.0	.0	50.8	
3-4	.0	11.1	7.9	.0	.0	.0	19.0	
5-6	.0	1.6	1.6	.0	.0	.0	3.2	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	20.6	55.6	23.8	.0	.0	.0	100.0	63

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	11.5	31.0	8.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	45
6-7	.0	8.0	6.9	6.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19
8-9	.0	2.3	3.4	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6
10-11	.0	1.1	.0	.0	1.1	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3
12-13	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
INDET	9.2	2.3	.0	2.3	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13
TOTAL	18	34	16	10	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	87
PCT	20.7	44.8	18.4	11.5	3.4	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1891-1972  
(OVER-ALL) 1856-1972

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	15.7	.0	.0	.0	.0	.0	.0	15.7	5.9	19.6	.0	.0	.0	.0	66.7
NE	2.6	5.1	.0	.0	.0	.0	.0	7.7	1.3	10.3	.0	.0	.0	.0	83.3
E	1.6	.0	.0	.0	.0	.0	.0	1.6	.0	1.6	.0	.0	.0	.0	98.4
SE	6.3	.0	.0	.0	.0	.0	.0	6.3	2.5	10.1	.0	.0	2.5	.0	81.1
S	9.2	3.1	.0	.0	.0	.0	.0	12.3	.0	4.6	.0	.0	.0	.0	83.1
SW	4.5	2.2	.0	.0	.0	.0	.0	6.7	4.5	6.7	.0	.0	.0	.0	82.0
W	6.1	12.1	.0	.0	.0	.0	.0	18.2	12.1	10.6	.0	.0	.0	.0	59.1
NW	16.0	.0	.0	.0	.0	.0	.0	16.0	.0	16.0	.0	.0	.0	.0	68.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	10.0	.0	.0	.0	10.0	.0	80.0
TOT PCT	5.7	2.3	.0	.0	.0	.0	.0	8.0	3.4	8.0	.0	.0	1.1	.0	81.0
TOT OBS:	174														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	7.0	2.3	.0	.0	.0	.0	.0	9.3	4.7	2.3	.0	.0	.0	.0	86.0
06009	2.2	.0	.0	.0	.0	.0	.0	2.2	.0	.0	.0	.0	.0	.0	97.8
12015	4.3	2.1	.0	.0	.0	.0	.0	6.4	2.1	21.3	.0	.0	2.1	.0	70.2
18021	8.5	6.4	.0	.0	.0	.0	.0	14.9	6.4	8.5	.0	.0	4.3	.0	68.1
TOT PCT TOT OBS:	5.5 182	2.7	.0	.0	.0	0	.0	8.2	3.3	8.2	.0	.0	1.6	.0	80.2

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.4	3.2	.3	.0	.0	.0		5.0	6.0		6.2	5.6	4.3	4.7	5.2	.0	5.9	4.6
NE	1.7	5.1	.9	.0	.0	.0		7.6	6.4		3.8	5.6	9.6	9.6	10.4	20.0	4.7	5.9
E	2.7	9.3	2.9	.1	.0	.0		15.2	7.4		17.0	22.2	18.8	11.5	12.8	7.5	12.4	16.7
SE	2.7	16.6	7.1	.7	.0	.0		27.1	9.0		29.4	33.3	23.9	26.3	31.0	32.5	27.4	26.4
S	2.3	7.2	2.2	.1	.0	.0		11.8	7.2		11.8	22.2	8.2	14.8	12.1	10.0	16.8	8.7
SW	1.7	5.7	1.1	.1	.0	.0		8.6	6.6		7.7	11.1	9.5	10.5	8.3	15.0	5.3	9.7
W	1.2	5.3	1.4	.2	.0	.0		8.1	7.5		7.4	.0	9.0	5.5	7.7	5.0	9.7	8.5
NW	1.5	3.7	1.4	.5	.1	.0		7.1	8.9		12.4	.0	7.6	5.5	3.6	.0	5.1	9.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	9.4							9.4	.0		4.2	.0	9.1	11.6	8.9	10.0	12.7	9.7
TOT OBS	319	727	225	20	1	0	1292		7.0		185	9	329	172	192	10	220	195
TOT PCT	24.7	58.3	17.4	1.5	.1	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	03	12	15
N	3.2	1.6	.1	.0	.0		5.0	6.0	6.2	4.4	5.0	5.3
NE	4.6	2.8	.2	.0	.0		7.6	6.4	3.9	9.6	10.9	5.2
E	7.7	7.0	.5	.0	.0		15.2	7.4	17.2	16.3	12.5	14.4
SE	10.0	14.4	2.6	.0	.0		27.1	9.0	29.6	24.8	31.1	26.9
S	6.7	4.4	.7	.0	.0		11.8	7.2	12.4	10.5	12.0	13.0
SW	5.3	3.2	.2	.0	.0		8.6	6.6	7.9	9.8	8.7	7.4
W	4.3	3.4	.4	.0	.0		8.1	7.5	7.0	7.8	7.5	9.1
NW	3.5	2.7	.6	.3	.0		7.1	8.9	11.8	6.9	3.5	7.3
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	9.4						9.4	.0	4.0	10.0	8.9	11.3
TOT OBS	710	509	68	5	0	1292		7.0	174	301	262	415
TOT PCT	55.0	39.4	5.3	.4	.0		100.0		100.0	100.0	100.0	100.0

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TABLE 4

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			40+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00Z03	4.0	16.7	67.6	15.5	1.1	.0	.0	7.2	100.0	174
06Z09	10.0	70.0	52.7	16.6	.2	.0	.0	6.4	100.0	201
12Z15	8.0	11.9	53.5	22.3	3.5	.0	.0	7.1	100.0	302
18Z21	11.3	9.9	56.3	22.9	2.4	.2	.0	7.2	100.0	311
TOT	12.2	19.7	72.7	22.5	2.0	.1	.0	7.0		1292
PCT	9.4	15.2	56.3	17.4	1.5	-1	.0	100.0		

BY WIND DIRECTION						
WIND DIR	0-2	3-4	5-7	8 & 0850	TOTAL OBS	MEAN WIND COVER
N	1.3	1.3	.0	.0		3.0
NE	1.3	.0	5.5	1.9		6.2
E	4.9	6.8	2.9	1.9		3.7
SE	6.8	7.8	6.5	5.2		4.3
S	1.0	1.0	8.1	.0		5.2
SW	3.6	1.3	3.9	.0		3.4
W	3.2	3.6	6.8	2.6		5.2
NW	1.3	.3	.0	1.3		4.8
VAP	.0	.0	.0	.0		.0
CALM	1.3	2.6	3.9	.0		4.5
TOT OBS	19	19	29	10	77	4.5
TOT PCT	24.7	24.7	37.7	13.0	100.0	

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	085
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.6	
.0	.0	.0	.0	.0	1.6	.0	.0	.0	.0	7.1	
.0	.0	.0	.0	.0	1.7	.0	.0	.0	.0	14.6	
.0	.0	.0	.0	2.9	1.6	.0	.0	.0	.0	21.8	
.0	.0	.0	.0	2.3	.0	1.3	.0	.0	.0	6.5	
.0	.0	.0	.3	1.3	.0	.0	.0	.0	.0	7.1	
.0	.0	.0	3.6	.0	2.6	.0	.0	.0	.0	10.1	
.0	.0	.0	.0	.0	1.3	.0	.0	.0	.0	1.6	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	1.2	.0	.0	.0	.0	.0	6.5	
.0	.0	.0	3	6	7	1	.0	.0	.0	60	
.0	.0	.0	3.9	7.8	9.1	1.3	.0	.0	.0	77.9	100.0

CEILING (FEET)	VSBY (NM)							
	# DR >10	# DR >5	# DR >2	# DR >1	# DR >1/2	# DR >1/4	# DR >50YD	# DR >0
# DR >6500	.0	.0	.0	.0	.0	.0	.0	.0
# DR >5000	.0	.0	.0	.0	.0	.0	.0	.0
# DR >3500	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
# DR >2000	7.5	10.0	10.0	10.0	10.0	10.0	10.0	10.0
# DR >1000	13.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
# DR >600	15.0	22.5	22.5	22.5	22.5	22.5	22.5	22.5
# DR >300	15.0	22.5	22.5	22.5	22.5	22.5	22.5	22.5
# DR >150	15.0	22.5	22.5	22.5	22.5	22.5	22.5	22.5
# DR > 0	15.0	22.5	22.5	22.5	22.5	22.5	22.5	22.5
TOTAL	12	18	18	18	18	18	18	18

TABLE 74

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
3.3	14.3	26.1	21.7	9.8	4.9	6.5	3.4	6.5	.0	92

PERIOD: (PRIMARY) 1891-1972  
(OVER-ALL) 1856-1972

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.3	.0	.0	.0	.0	.0	.0	.3	.0	.0	.6	
	TOT %	.3	.0	.0	.0	.0	.0	.0	.3	.0	.0	.6	
1/2<1	PCP	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	
1<2	PCP	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.6	
	NO PCP	.0	.6	.0	.6	.0	.0	.0	.0	.0	.0	1.7	
	TOT %	.0	.6	.0	.9	.3	.0	.0	.0	.0	.0	2.3	
2<5	PCP	.6	.0	.0	.0	.3	.3	.0	.0	.0	.0	1.1	
	NO PCP	.0	.0	.6	.0	.4	.1	.0	.0	.0	.0	1.1	
	TOT %	.6	.0	.6	.0	.7	.4	.0	.0	.0	.0	2.3	
5<10	PCP	.0	.3	.3	.6	.3	.3	1.7	.0	.0	.0	3.4	
	NO PCP	2.0	4.3	6.0	4.0	2.9	5.5	1.4	.9	.0	1.7	28.7	
	TOT %	2.0	4.6	6.3	4.6	3.2	5.7	3.2	.9	.0	1.7	32.2	
10+	PCP	.0	.6	.0	.6	.3	.3	.0	.6	.0	.0	2.3	
	NO PCP	3.9	5.3	10.3	16.3	4.9	6.3	5.3	1.9	.0	3.4	59.8	
	TOT %	3.9	6.0	10.8	17.4	5.2	6.6	6.3	2.4	.0	3.4	62.1	
TOT OBS		174											
TOT PCT		7.3	11.2	17.7	22.8	9.3	12.6	9.5	3.6	.0	5.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	4-10	.0	.5	.1	.5	.1	.0	.0	.0	.0	.0	1.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.5	.1	.5	.1	.2	.0	.0	.0	.2	1.7	
2<5	0-3	.2	.0	.2	.1	.1	.0	.0	.0	.0	.2	1.0	
	4-10	.0	.0	.1	.5	.4	.2	.0	.0	.0	.0	1.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.0	.4	.6	.5	.2	.0	.0	.0	.2	2.2	
5<10	0-3	.1	.0	.2	.2	.5	.5	.2	.1	.0	.7	2.7	
	4-10	.4	1.7	2.3	2.3	1.3	2.1	1.3	.5	.0	.0	11.6	
	11-21	.5	.5	.7	.5	.2	.8	.5	.1	.0	.0	3.9	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	1.0	2.2	3.3	3.0	2.1	3.4	2.1	.7	.0	.7	18.4	
10+	0-3	1.4	1.7	2.1	2.1	1.9	.9	1.2	1.3	.0	6.0	18.6	
	4-10	2.5	3.9	9.5	17.0	7.1	4.0	4.0	2.1	.0	.0	50.0	
	11-21	.0	.6	1.2	3.7	.8	.8	.6	.4	.0	.0	8.2	
	22+	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.5	
	TOT %	3.9	6.2	12.7	23.4	9.8	5.8	5.8	3.7	.0	6.0	77.3	
TOT OBS		414											
TOT PCT		5.5	8.8	16.5	27.5	12.5	9.6	7.9	4.5	.0	7.2	100.0	

MAY

PERIOD: (PRIMARY) 1891-1972  
(OVER-ALL) 1856-1972AREA 0003 SUNDIA STRAIT  
5.35 104.8E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	500 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	10.5	10.5	10.5	5.3	.0	.0	.0	36.8	63.2	19
06009	.0	.0	.0	.0	8.3	4.2	.0	.0	.0	.0	12.5	87.5	24
12015	.0	.0	.0	4.0	12.0	4.0	.0	.0	.0	.0	20.0	80.0	25
18021	.0	.0	.0	.0	.0	14.3	.0	.0	.0	.0	14.3	85.7	21
TOT	.0	.0	.0	3	7	7	1	.0	.0	.0	18	71	89
PCT	.0	.0	.0	3.4	7.9	7.9	1.1	.0	.0	.0	20.2	79.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	1.3	1.3	20.8	76.6	77
06009	.0	.0	1.6	.0	13.0	85.4	123
12015	1.1	.0	2.3	6.8	18.2	71.6	88
18021	.0	.7	2.2	1.5	22.4	73.1	134
TOT	1	1	8	9	78	325	422
PCT	.2	.2	1.9	2.1	18.5	77.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <500D	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	11.8	29.4	58.8	17
06009	.0	.0	.0	13.6	86.4	22
12015	.0	.0	9.1	18.2	72.7	22
18021	.0	.0	.0	15.0	84.2	19
TOT	.0	.0	4	15	61	80
PCT	.0	.0	5.0	18.8	76.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	1.7	8.5	4.3	.9	18	15.4
80/84	.0	.0	.0	.0	4.3	19.7	45.3	12.0	95	81.2
75/79	.0	.0	.0	.0	.0	.0	.9	2.6	4	3.4
TOTAL	.0	.0	.0	.0	7	33	59	18	117	100.0
PCT	.0	.0	.0	.0	6.0	28.2	50.4	15.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.4	3.4	3.4	2.1	1.5	2.1	.6	.9	.0	.9
2.6	8.6	15.4	18.2	7.1	10.0	11.3	1.9	.0	6.0
.0	.0	.9	1.7	.9	.0	.0	.0	.0	.0
3.0	12.2	19.7	22.0	9.4	12.2	12.0	2.8	.0	6.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	86	85	85	82	79	77	77	82.1	161
06009	94	91	89	84	81	78	75	84.4	476
12015	87	86	86	83	80	79	77	82.9	198
18021	88	86	85	82	79	77	75	81.9	401
TOT	94	90	87	83	80	77	75	83.1	1236

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	3.8	26.9	53.8	15.4	82	26
06009	.0	.0	19.2	38.5	34.6	7.7	78	26
12015	.0	.0	2.9	38.2	47.1	11.8	81	34
18021	.0	.0	.0	18.9	56.8	24.3	85	37
TOT	.0	.0	7	37	60	19	82	123

MAY

PERIOD: (PRIMARY) 1891-1972  
(OVER-ALL) 1856-1972

TABLE 17

AREA 0003 SUNDRA STRAIT  
5.58 104.8EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
6	.0	.0	.0	.0	1	.0	.6
4	.0	.0	.0	.0	2	.0	1.3
3	.0	.0	.0	.0	2	.0	1.3
2	.0	8.4	2.6	.0	18	.0	11.6
1	.0	1.3	3.9	.0	8	.0	5.2
0	.6	12.3	3.9	.0	26	.0	16.8
-1	.6	11.6	3.2	.0	24	.0	15.5
-2	1.3	14.8	1.9	.0	28	.0	18.1
-3	.6	6.5	1.3	.0	13	.0	8.4
-4	3.9	6.5	.6	.0	17	.0	11.0
-5	3.9	2.6	.6	.0	11	.0	7.1
-6	.0	.6	.0	.0	1	.0	.6
-7/-8	1.9	.6	.0	.0	4	.0	2.6
TOTAL	21		29		155	0	155
PCT	13.5	103	18.7	1.3	100.0		100.0

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.1	.0	.0	.0	.0	2.1	.0	2.6	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	2.1	4.7	.0	.0	.0	.0	6.8
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	.0	.0	2.1
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.1	.0	.0	.0	.0	2.1	2.1	7.3	2.1	.0	.0	.0	11.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	2.1	3.6	.0	.0	.0	.0	5.7	2.6	2.6	.0	.0	.0	.0	5.2
1-2	.0	7.8	.0	.0	.0	.0	7.8	.0	10.4	2.1	.0	.0	.0	12.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	2.6	6.3	.0	.0	.0	8.9
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	2.1	.0	.0	4.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	.0	.0	2.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.1	11.5	.0	.0	.0	.0	13.5	2.6	15.6	12.5	2.1	.0	.0	32.8

PERIOD: (OVER-ALL) 1963-1972

WAV

AREA 0003 SUNDA STRAIT  
5.55 104.8E

TABLE 18 (CONT)

PCT F.F. OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.6	3.6	.0	.0	.0	.0	5.2	.0	.0	.0	.0	.0	.0	.0
1-2	.0	5.7	.0	.0	.0	.0	5.7	.0	3.0	.0	.0	.0	.0	3.6
3-4	.0	1.6	.0	.0	.0	.0	1.6	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.6	10.9	.0	.0	.0	.0	12.5	.0	3.6	.0	.0	.0	.0	3.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	2.1	.0	.0	.0	.0	.0	2.1	
1-2	.0	7.3	.0	.0	.0	.0	7.3	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	2.1	.0	.0	.0	2.1	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	7.3	2.1	.0	.0	.0	9.4	2.1	.0	.0	.0	.0	.0	2.1	87.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	20.8	14.6	.0	.0	.0	.0	25.4	
1-2	2.1	39.5	2.1	.0	.0	.0	43.8	
3-4	.0	4.2	10.4	.0	.0	.0	14.6	
5-6	.0	.0	2.1	.0	.0	.0	4.2	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	2.1	.0	.0	.0	2.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	22.9	58.3	16.7	2.1	.0	.0	100.0	48

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	12.3	33.8	7.7	4.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	38
6-7	.0	.0	7.7	9.2	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12
8-9	.0	.0	1.5	.0	1.5	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3
10-11	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
INDET	9.2	3.1	3.1	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11
TOTAL	14	24	14	10	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	65	3
PCT	21.5	36.9	21.5	15.4	3.1	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0



PERIOD: (PRIMARY) 1885-1971  
(OVER-ALL) 1855-1971

JUNE

AREA 0003 SUNDA STRAIT  
5.65 104.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WNO DIR	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	5.5	.0	5.5	.0	.0	.0	89.0
E	.0	.0	.0	.0	.0	.0	.0	.0	2.8	1.4	2.8	.0	.0	.0	93.0
SE	2.2	3.5	.0	.0	.0	.0	.0	5.6	.0	11.5	.0	.0	3.5	.0	81.0
S	2.8	.0	.0	.0	.0	.0	.0	2.8	.0	.0	3.7	.0	.0	.0	93.6
SW	.0	5.9	.0	.0	.0	.0	.0	5.9	.0	11.8	.0	.0	.0	.0	82.4
W	8.7	13.0	.0	.0	.0	.0	.0	21.7	.0	6.7	.0	.0	.0	.0	89.6
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	10.0	.0	.0	.0	.0	.0	.0	10.0	.0	10.0	.0	.0	.0	.0	80.0
TOT PCT	2.2	2.2	.0	.0	.0	.0	.0	4.5	1.1	5.6	1.7	.0	1.1	.0	86.5
TOT OBS:	178														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00003	2.5	5.0	.0	.0	.0	.0	.0	7.5	2.5	.0	.0	.0	.0	.0	.0	90.0
06009	.0	2.2	2.2	.0	.0	.0	.0	4.3	.0	.0	.0	.0	.0	.0	.0	95.7
12015	.0	2.1	.0	.0	.0	.0	.0	2.1	2.1	6.3	2.1	.0	4.2	.0	.0	83.3
18021	5.8	.0	.0	.0	.0	.0	.0	5.8	.0	13.5	3.8	.0	.0	.0	.0	78.8
TOT PCT TOT OBS:	2.2 186	2.2	.5	.0	.0	.0	.0	4.8	1.1	5.4	1.6	.0	1.1	.0	.0	86.6

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.7	2.7	.3	.0	.0	.0	3.7	6.0	2.5	.0	3.1	6.4	4.0	.0	3.2	4.3		
NE	1.1	5.2	1.3	.0	.0	.0	7.6	7.5	8.2	20.0	8.6	10.1	9.5	.0	4.4	5.6		
E	2.1	11.8	4.2	.3	.0	.0	18.5	8.4	19.3	20.0	21.6	17.5	17.6	5.0	14.8	19.4		
SE	3.0	17.9	12.0	1.5	.0	.0	34.4	10.0	40.4	40.0	32.7	32.8	33.5	30.0	33.7	34.2		
S	1.6	6.6	3.6	.1	.0	.0	11.9	8.9	10.9	.0	7.1	10.7	12.6	35.0	17.4	13.3		
SW	1.6	4.1	1.1	.1	.0	.0	6.8	7.0	5.3	.0	6.4	2.5	3.6	.0	11.9	10.4		
W	1.0	2.9	.8	.0	.0	.0	4.7	7.4	3.5	20.0	5.4	5.5	5.2	20.0	3.5	3.8		
NW	1.0	2.2	.7	.2	.0	.0	4.1	7.8	4.2	.0	4.9	5.8	2.6	10.0	4.8	2.0		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	8.2						8.2	.0	5.7	.0	10.2	8.6	11.4	.0	6.2	7.1		
TOT OBS	260	685	908	28	0	0	1281		192	5	294	163	193	10	226	198		
TOT PCT	20.3	53.5	24.0	2.2	.0	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	06	12	18
N	2.6	1.0	.1	.0	.0		3.7	2.4	4.3	3.8	3.7
NE	3.6	3.7	.5	.0	.0		7.6	8.5	9.1	9.0	5.0
E	7.3	9.9	1.2	.0	.0		18.5	19.3	20.1	17.0	17.0
SE	11.4	17.8	5.0	.2	.0		34.4	40.4	32.8	33.4	34.0
S	4.6	5.8	1.5	.0	.0		11.9	10.7	8.4	13.7	15.4
SW	3.8	2.7	.3	.0	.0		6.8	5.2	5.0	3.4	11.2
W	2.1	2.5	.1	.0	.0		4.7	3.9	5.4	5.9	3.7
NW	2.2	1.4	.5	.0	.0		4.1	4.1	5.3	3.0	3.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0
CALM	8.2						8.2	5.6	9.6	10.8	6.6
TOT OBS	588	575	115	3	1281		8.0	197	497	203	424
TOT PCT	45.9	44.9	9.0	.2	.0		100.0	100.0	100.0	100.0	100.0

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PERIOD: (PRIMARY) 1885-1971  
(COVER-ALL) 1855-1971AREA 0003 SUNDA STRAIT  
5.63 104.85

TABLE 4

## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	5.6	11.2	31.3	29.9	2.0	.0	.0	.0	8.5	100.0	197
00009	9.6	13.3	31.6	23.4	2.0	.0	.0	.0	7.7	100.0	457
12015	10.8	12.8	37.7	22.2	1.5	.0	.0	.0	7.6	100.0	203
18021	6.6	10.8	36.8	22.9	2.8	.0	.0	.0	8.2	100.0	424
TOT	105	155	585	308	28	.0	.0	.0	8.0		1281
PCT	8.2	12.1	53.5	24.0	2.2	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	J & OBS	TOTAL OBS	MEAN CLOUD COVER
Y	.0	.0	1.9	.0		6.0
NE	3.9	5.2	.3	2.9		3.9
E	4.9	5.2	6.5	3.6		4.5
SE	10.4	4.1	13.3	2.3		3.9
S	5.5	3.9	3.2	1.6		3.5
SW	.0	.0	2.9	1.6		6.4
W	1.3	.0	2.6	1.0		5.3
NW	.0	.0	.3	1.3		7.4
VAR	.0	.0	.0	.0		.0
CALM	.0	1.3	3.6	.0		9.2
TOT OBS	20	19	27	11	77	4.3
TOT PCT	26.0	24.7	35.1	14.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM) > 4/8  
AND OCCURRENCE OF NM < 5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NM < 5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	1.0	
.0	.0	.0	.3	1.3	.0	.0	.0	.0	.0	.0	10.7
.0	.0	.0	2.3	.0	2.6	.0	.0	.0	.0	.0	15.3
.0	.0	.0	.3	2.9	1.9	1.3	.0	.0	.0	.0	28.8
.0	.0	.0	1.0	1.0	.6	.0	.0	.0	.0	.0	11.7
.0	.0	.0	1.3	1.3	.0	.0	.0	.0	.0	.0	1.9
.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	3.6
.0	.0	1.3	.0	.0	.3	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	2.6	.0	.0	.0	.0	.0	.0	2.6
.0	.0	2	4	7	5	1	.0	.0	.0	.0	58
.0	.0	2.6	5.2	9.1	6.5	1.3	.0	.0	.0	75.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM > 4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				VSBY (NM)				VSBY (NM)			
	> 10	> 5	> 2	> 1	> 1/2	> 1/4	> 50 YD	> 0	> 10	> 5	> 2	> 1
> 6500	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
> 5000	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
> 3500	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
> 2000	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
> 1000	15.0	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
> 600	18.8	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
> 300	21.3	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
> 150	21.3	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
> 0	21.3	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
TOTAL	17	20	20	20	20	20	20	20	20	20	20	20

TOTAL NUMBER OF OBS: 80

PCT FREQ NM &lt; 5/8: 75.0

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
6.8	14.8	22.7	19.3	12.5	8.0	4.8	3.4	5.7	.0	88

PERIOD: (PRIMARY) 1885-1971  
(OVER-ALL) 1855-1971

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5.6S 104.8E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
PCP	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.6	
NO PCP	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.6	
TOT %	.0	.0	.6	.0	.0	.0	.6	.0	.0	.0	1.1	
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NO PCP	.0	.0	1.4	2.0	.6	.0	.0	.0	.0	.0	4.0	
TOT %	.0	.0	1.4	2.0	.6	.0	.0	.0	.0	.0	4.0	
PCP	.0	.0	.0	1.8	.4	.4	.8	.0	.0	.6	4.0	
NO PCP	1.1	2.5	4.8	4.2	5.4	1.8	1.8	.4	.0	.4	23.2	
TOT %	1.1	2.5	4.8	6.1	5.8	2.1	2.7	.4	.0	1.1	27.1	
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NO PCP	2.1	7.8	13.5	23.9	9.0	2.7	3.2	1.8	.0	4.0	67.3	
TOT %	2.1	7.8	13.5	23.9	9.0	2.7	3.2	1.8	.0	4.0	67.3	
TOT OBS												177
TOT PCT	3.2	10.3	20.1	31.9	15.4	4.8	6.5	2.7	.0	5.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
0-3		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4-10		.0	.0	.3	.3	.3	.0	.0	.0	.0	.0	.8	
11-21		.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3	
22+		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %		.0	.0	.3	.3	.3	.0	.3	.0	.0	.0	1.1	
0-3		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4-10		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
11-21		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
22+		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
0-3		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4-10		.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.3	
11-21		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
22+		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %		.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.3	
0-3		.0	.0	.3	.3	.3	.0	.0	.0	.0	.0	.8	
4-10		.0	.0	.4	.7	.0	.0	.0	.0	.0	.0	1.1	
11-21		.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.3	
22+		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %		.0	.0	.7	.9	.3	.0	.1	.1	.0	.0	2.1	
0-3		.0	.1	.7	.0	.1	.2	.6	.4	.0	.8	2.9	
4-10		.5	1.1	1.3	2.3	2.1	.8	.7	.3	.0	.0	9.1	
11-21		.5	.4	.6	1.5	1.4	.0	.0	.4	.0	.0	4.8	
22+		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %		1.1	1.6	2.5	3.8	3.7	1.0	1.3	1.1	.0	.8	16.9	
0-3		.4	1.3	2.0	1.9	.3	.5	.9	.4	.0	5.9	13.7	
4-10		2.6	4.4	9.9	18.8	7.3	2.5	2.2	1.9	.0	.0	49.6	
11-21		.0	.4	2.7	9.9	2.3	.5	.0	.0	.0	.0	15.1	
22+		.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.3	
TOT %		3.0	6.1	14.8	30.8	9.9	3.6	3.2	2.3	.0	5.9	79.0	
TOT OBS													373
TOT PCT		4.1	7.7	18.3	36.0	14.3	4.6	4.8	3.6	.0	6.7	100.0	

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PERIOD: (PRIMARY) 1885-1971  
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	4.2	8.3	12.5	4.2	4.2	.0	.0	.0	33.3	66.7	24
06009	.0	.0	5.0	5.0	10.0	10.0	.0	.0	.0	.0	30.0	70.0	20
12015	.0	.0	.0	.0	.0	5.0	.0	.0	.0	.0	5.0	95.0	20
18021	.0	.0	.0	8.7	8.7	4.3	.0	.0	.0	.0	21.7	78.3	23
TOT	0	0	2	5	7	5	1	0	0	0	20	67	87
PCT	.0	.0	2.3	5.7	8.0	5.7	1.1	.0	.0	.0	23.0	77.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	1.5	.0	.0	3.0	22.4	73.1	67
06009	.9	.0	.0	1.8	15.5	81.8	110
12015	1.2	1.2	1.2	3.7	13.6	79.0	81
18021	.8	.0	.0	.8	20.2	78.2	124
TOT	4	1	1	8	68	300	382
PCT	1.0	.3	.3	2.1	17.8	78.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	4.2	12.5	20.8	66.7	24
06009	.0	5.3	15.8	21.1	63.2	19
12015	.0	.0	.0	6.3	93.8	16
18021	.0	.0	9.5	14.3	76.2	21
TOT	0	2	8	13	59	80
PCT	.0	2.5	10.0	16.3	73.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	3.6	6.3	1.8	.0	13	11.6
80/84	.0	.0	.0	.0	1.8	29.5	40.2	9.8	91	81.3
75/79	.0	.0	.0	.0	.0	.0	4.5	2.7	8	7.1
TOTAL	0	0	0	0	6	40	52	14	112	100.0
PCT	.0	.0	.0	.0	5.4	35.7	46.4	12.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	1.8	3.6	6.3	.0	.0	.0	.0	.0	.0
80/84	4.5	11.4	19.0	22.3	13.4	2.9	1.6	.9	.0	5.4
75/79	.0	.0	.9	1.1	2.0	1.3	1.8	.0	.0	.0
TOTAL	4.5	13.2	23.4	29.7	15.4	4.2	3.3	.9	.0	5.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	86	85	82	78	77	76	81.5	192
06009	94	90	87	83	79	76	73	83.5	441
12015	92	90	86	82	80	79	77	82.7	200
18021	88	85	84	82	78	75	74	81.4	412
TOT	94	89	86	82	78	76	73	82.4	1245

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	23.3	63.3	13.3	84	30
06009	.0	.0	24.0	52.0	16.0	8.0	77	25
12015	.0	.0	.0	46.4	39.3	14.3	80	28
18021	.0	.0	.0	32.4	56.8	10.8	82	37
TOT	0	0	6	45	55	14	81	120

JUNE

PERIOD: (PRIMARY) 1865-1971  
(OVER-ALL) 1855-1971AREA 0003 SUNDIA STRAIT  
5.65 104.8E

TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	77 80	81 84	85 86	89 92	TOT	N FOG	NO FOG
7/8	.0	.0	.6	1.2	2	.0	1.9
6	.0	.0	.0	.6	1	.0	.6
5	.0	.6	.6	1.2	4	.0	2.5
4	.0	.0	2.5	.0	4	.0	2.5
3	.0	.6	.0	.0	1	.0	.6
2	.6	3.1	2.5	.0	10	.0	6.2
1	.0	4.9	.6	.0	9	.6	4.9
0	.6	15.4	3.1	.0	31	1.2	17.9
-1	.6	11.1	1.9	.0	22	.0	13.6
-2	2.5	16.0	.6	.0	31	.0	19.1
-3	3.7	8.0	.6	.0	20	.0	12.3
-4	2.5	3.1	.6	.0	10	.0	6.2
-5	1.9	4.3	.0	.0	10	.0	6.2
-6	1.2	.6	.0	.0	3	.0	1.9
-7/-8	.6	.0	.0	.0	1	.0	.6
-9/-10	.6	.0	.0	.0	1	.0	.6
-11/-13	.6	.0	.0	.0	1	.0	.6
TOTAL	25		22		162	3	159
PCT	15.4	67.9	13.6	3.1	100.0	1.9	98.1

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	1.8	1.8	.0	.0	.0	.0	3.6
1-2	.0	1.3	.0	.0	.0	.0	1.3	1.8	4.5	.0	.0	.0	.0	6.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	1.8	.0	.0	.0	.0	1.8
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.3	.0	.0	.0	.0	1.3	3.6	8.0	.0	.0	.0	.0	11.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.8	1.8	.0	.0	.0	.0	3.6	.0	7.1	.0	.0	.0	.0	7.1
1-2	1.8	3.1	1.8	.0	.0	.0	6.7	.0	9.4	2.2	.0	.0	.0	11.6
3-4	.0	4.9	3.1	.0	.0	.0	8.0	.0	2.2	4.0	.0	.0	.0	6.3
5-6	.0	.0	1.3	.0	.0	.0	1.3	.0	1.8	6.3	.0	.0	.0	8.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	3.6	9.6	6.3	.0	.0	.0	19.6	.0	20.5	12.3	.0	.0	.0	33.0

PERIOD: (OVER-ALL) 1963-1971

JUNE

TABLE 18 (CONT)

AREA 0003 SUNDA STRAIT  
5.65 104.8E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.8	.0	.0	.0	.0	1.8	.0	.4	.0	.0	.0	.0	.4
1-2	.0	6.7	1.3	.0	.0	.0	8.0	.0	1.8	.0	.0	.0	.0	1.8
3-4	.0	1.8	.0	.0	.0	.0	1.8	.0	.0	1.8	.0	.0	.0	1.8
5-6	.0	.0	3.1	.0	.0	.0	3.1	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	10.3	4.3	.0	.0	.0	14.7	.0	2.2	1.8	.0	.0	.0	4.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.3	.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.8	.0	.0	.0	.0	1.8	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	1.8	1.8	.0	.0	.0	3.6	.0	1.8	.0	.0	.0	.0	1.8	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.9	1.8	.0	.0	.0	6.7	.0	1.8	.0	.0	.0	.0	1.8	92.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	10.5	14.0	.0	.0	.0	.0	24.6	
1-2	3.5	29.8	5.3	.0	.0	.0	38.6	
3-4	.0	14.0	10.5	.0	.0	.0	24.6	
5-6	.0	1.8	10.5	.0	.0	.0	12.3	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	14.0	59.6	26.3	.0	.0	.0	100.0	57

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.3	23.2	17.4	10.1	1.4	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	40	3
6-7	.0	1.4	5.8	5.8	.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10	4
8-9	.0	.0	.0	2.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	5
10-11	.0	.0	.0	1.4	.0	2.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	7
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	8.7	2.9	4.3	2.9	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14	2
TOTAL	9	19	19	16	2	4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	69	3
PCT	13.0	27.5	27.5	23.2	2.9	5.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1880-1972  
(OVER-ALL) 1854-1972

JULY

AREA 0003 SJUO2 STRAIT  
5.05 104.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW PCPN	OTHER FZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR L'NG	FOG PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY PLWG DUST	NO SIG WFA	
N	.0	13.3	13.3	.0	.0	.0	.0	26.7	13.3	.0	.0	.0	13.3	.0	40.7	
NE	.0	11.1	.0	.0	.0	.0	.0	11.1	.0	.0	.0	.0	.0	.0	88.9	
E	.0	3.7	.0	.0	.0	.0	.0	3.7	1.6	.0	.0	.0	3.7	.0	92.1	
SE	.0	1.1	.0	.0	.0	.0	.0	1.1	.4	3.0	.0	.0	.7	.0	94.0	
S	4.4	2.2	.0	.0	.0	.0	.0	6.7	.0	.0	.0	.0	3.3	.0	90.0	
SW	6.1	.0	9.1	.0	.0	.0	.0	9.1	0.1	.0	.0	.0	.0	.0	81.8	
W	.0	.0	26.1	.0	.0	.0	.0	26.1	39.1	.0	.0	.0	.0	.0	34.8	
NW	.0	.0	.0	.0	.0	.0	.0	.0	11.1	.0	.0	.0	.0	.0	88.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
TOT PCT	1.0	3.0	2.0	.0	.0	.0	.0	5.6	3.0	1.0	.0	.0	2.0	.0	88.3	
TOT OBS	197															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW PCPN	OTHER FZNY PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR L'NG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY PLWG DUST	NO SIG WFA
00003	3.4	1.7	3.4	.0	.0	.0	.0	6.9	3.4	1.7	.0	.0	.0	.0	87.9
06009	1.9	5.8	1.9	.0	.0	.0	.0	9.6	1.9	.0	1.9	.0	3.8	.0	82.7
12015	.0	2.0	2.0	.0	.0	.0	.0	4.0	4.0	2.0	.0	.0	4.0	.0	86.0
18021	3.8	3.8	1.9	.0	.0	.0	.0	9.4	1.9	1.9	1.9	.0	.0	.0	84.9
TOT PCT	2.3	3.3	2.3	.0	.0	.0	.0	7.5	2.8	1.4	.9	.0	1.9	.0	85.4
TOT OBS:	213														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.8	2.1	.3	.0	.0	.0		3.3	6.3		1.7	.0	3.5	4.4	4.3	.0	4.3	1.7
NE	1.6	5.8	.8	.1	.0	.0		8.4	6.8		6.7	.0	8.4	12.8	11.3	11.1	6.6	4.7
E	2.6	10.3	4.9	1.1	.1	.0		18.9	9.3		20.4	55.6	22.9	18.4	25.1	11.1	12.8	14.0
SE	2.9	17.1	13.8	2.2	.1	.0		36.0	10.8		42.3	27.3	33.0	36.0	32.5	44.4	36.5	38.4
S	1.3	7.7	3.9	.2	.0	.0		13.1	9.0		12.4	16.7	10.1	8.1	14.1	5.6	15.5	18.6
SW	1.6	3.8	.9	.0	.0	.0		6.3	6.7		2.9	.0	7.1	6.4	7.6	5.6	9.0	5.4
W	.7	2.6	.6	.0	.0	.0		3.9	7.1		4.6	.0	3.5	4.7	1.9	8.3	4.6	5.0
NW	.6	2.0	.6	.1	.0	.0		3.3	7.5		3.2	.0	3.3	3.7	1.4	2.8	4.3	3.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.7							6.7	.0		5.5	.0	7.8	5.4	5.8	11.1	7.3	7.7
TOT OBS	255	695	747	50	2	0	1349		8.5		201	9	361	148	208	9	232	181
TOT PCT	18.9	51.5	25.7	3.7	.1	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	2.1	1.1	.1	.0	.0			3.3	6.3		1.7	3.7	4.1	3.1
NE	4.9	3.2	.3	.0	.0			8.4	6.8		6.4	10.1	11.3	5.8
E	8.4	7.8	2.4	.4	.0			18.9	9.3		21.9	21.6	19.7	13.0
SE	10.0	19.2	6.7	.2	.0			36.0	10.8		41.9	33.8	32.9	37.3
S	5.0	6.7	1.4	.0	.0			13.1	9.0		12.6	9.5	14.7	16.9
SW	3.7	2.6	.1	.0	.0			6.3	6.7		2.7	6.9	7.5	6.8
W	2.1	1.7	.1	.0	.0			3.9	7.1		4.4	3.8	2.2	4.8
NW	1.7	1.4	.2	.0	.0			3.3	7.5		3.1	3.4	1.5	4.1
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	6.7							6.7	.0		5.2	7.1	6.0	7.5
TOT OBS	661	589	192	7	0	1349			8.5		210	309	217	413
TOT PCT	44.6	43.7	11.3	.5	.0			100.0			100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1880-1972  
(OVER-ALL) 1854-1972

JULY

AREA 0003 SUNDRA STRAIT  
5.05 104.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				40+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	5.2	8.1	55.7	24.8	5.7	.5	.0	.0	9.1	100.0	210
06009	7.1	14.7	47.2	26.5	4.5	.0	.0	.0	8.5	100.0	509
12015	6.0	14.3	53.5	23.0	3.2	.0	.0	.0	8.2	100.0	217
18021	7.5	9.9	53.8	26.6	1.9	.2	.0	.0	8.4	100.0	413
TOT	91	164	695	347	50	2	0	0	8.5		1349
PCT	6.7	12.2	51.5	25.7	3.7	.1	.0		100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	C-2	3-4	5-7	8-10	TOTAL OBS	MEAN CLOUD COVER
N	.9	.0	.9	.9		5.0
NE	.2	.2	.0	1.8		7.0
E	9.1	6.2	7.5	2.2		3.7
SE	12.6	10.0	12.2	3.1		3.8
S	4.2	4.0	1.5	.9		3.2
SW	.4	1.8	4.2	1.5		5.7
W	.0	.0	1.1	2.7		7.7
NW	.0	.9	.9	.2		4.3
VAR	.0	.0	.0	.0		.0
CALM	4.4	.0	2.7	.9		3.4
TOT OBS	36	26	35	16	113	4.1
TOT PCT	31.9	23.7	31.0	14.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WIND DIR	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	1.8	.0	.0	.0	.0	.0	.9	
NE	.0	.0	.0	.0	.0	1.8	.0	.0	.0	.0	.4	
E	.7	.0	.0	1.8	.7	1.8	.0	.0	.0	.0	20.1	
SE	.2	.0	.0	2.7	2.0	.0	.0	.0	.0	.0	39.0	
S	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	9.7	
SW	.0	.0	.0	.0	2.0	1.8	.4	.0	.0	.0	3.8	
W	.0	.0	.7	.0	1.5	.0	.4	.0	.0	.0	1.1	
NW	.0	.0	.2	.9	.0	.0	.0	.0	.0	.0	.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.9	.0	.9	.0	.0	.0	.0	.0	6.2	
TOT OBS	1	1	2	6	10	6	1	0	0	0	86	113
TOT PCT	.9	.9	1.8	5.3	8.8	5.3	.9	.0	.0	.0	76.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.0	.0	.0	.0	.0	.0	.0	.0
>5000	.0	.0	.0	.0	.0	.0	.0	.0
>3500	.8	.8	.8	.8	.8	.8	.8	.8
>2000	5.0	5.8	5.8	5.8	5.8	5.8	5.8	5.8
>1000	10.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
>600	15.0	20.8	20.8	20.8	20.8	20.8	20.8	20.8
>300	15.8	22.5	22.5	22.5	22.5	22.5	22.5	22.5
>150	15.8	22.5	22.5	23.3	23.3	23.3	23.3	23.3
>0	15.8	22.5	22.5	23.3	23.3	23.3	24.2	24.2
TOTAL	19	27	27	28	28	28	29	29

TOTAL NUMBER OF OBS: 120

PCT FREQ NH <5/8: 75.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

n	1	2	3	4	5	6	7	8	8 OBS	TOTAL OBS
8.4	13.7	26.0	12.2	14.5	4.6	6.9	3.1	9.9	.8	131



PERIOD: (PRIMARY) 1880-1972  
(OVER-ALL) 1854-1972

JULY

AREA 0003 Sunda Strait  
5.6S 104.8E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.4	.1	.0	.0	.0	.0	.0	.0	.5	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.4	.1	.0	.0	.0	.0	.0	.0	.5	
1/2<1	PCP	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.5	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.5	
1<2	PCP	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.5	
	NO PCP	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	
	TOT %	.5	.0	.0	.0	.5	.0	.0	.0	.0	.0	1.0	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5<10	PCP	1.0	1.0	.5	.0	.0	.8	.8	.0	.0	.0	4.1	
	NO PCP	1.0	3.3	5.2	6.0	2.0	2.9	.8	.1	.0	.0	21.3	
	TOT %	2.0	4.3	5.7	6.0	2.0	3.7	1.5	.1	.0	.0	25.4	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	1.3	4.8	18.1	27.5	8.6	4.7	1.4	1.0	.0	5.1	72.6	
	TOT %	1.3	4.8	18.1	27.5	8.6	4.7	1.4	1.0	.0	5.1	72.6	
TOT OBS													197
TOT PCT													3.8 9.1 24.2 33.9 11.4 8.4 2.9 1.1 .0 5.1 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSEY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.2	.1	.0	.0	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.2	.1	.0	.0	.0	.0	.0	.0	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.3	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.3	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.5	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.5	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	
	11-21	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.5	
5<10	0-3	.3	.9	.5	.1	.0	.0	.0	.0	.0	.0	1.8	
	4-10	.3	1.4	1.9	2.4	1.2	1.3	.4	.0	.0	.0	9.1	
	11-21	.3	.0	.9	1.8	.4	.6	.4	.1	.0	.0	4.4	
	22+	.0	.0	.0	.5	.0	.0	.0	.3	.0	.0	.8	
	TOT %	1.0	2.3	3.3	4.9	1.6	1.9	.8	.3	.0	.0	16.1	
10+	0-3	.0	1.2	1.4	2.5	1.8	.9	.3	.1	.0	5.2	12.2	
	4-10	.9	3.8	9.3	17.1	9.7	2.9	1.4	1.0	.0	.0	46.2	
	11-21	.3	.1	3.2	12.9	2.7	.6	.5	.3	.0	.0	20.5	
	22+	.0	.0	1.1	1.2	.0	.0	.0	.0	.0	.0	2.3	
	TOT %	1.2	5.2	15.1	33.8	14.0	4.4	2.1	1.4	.0	5.2	82.3	
TOT OBS													385
TOT PCT													2.5 7.5 18.6 39.4 15.9 6.3 2.9 1.8 .0 5.2 100.0

PERIOD: (PRIMARY) 1880-1974  
(OVER-ALL) 1854-1972

JULY

AREA 0003 SUNDIA STRAIT  
5.65 104.8E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL OBS	NM <5/8 ANY HGT	TOTAL OBS
00003	2.4	.0	.0	4.9	9.8	2.4	2.4	.0	.0	.0	22.0	78.0	41
06009	.0	.0	.0	7.1	.0	7.1	.0	.0	.0	.0	14.3	85.7	28
12015	.0	.0	3.6	3.6	10.7	7.1	.0	.0	.0	.0	25.0	75.0	28
18021	.0	3.3	3.3	6.7	13.3	3.3	.0	.0	.0	.0	30.0	70.0	30
TOT PCT	1 .8	1 .6	2 1.6	7 5.5	31 8.7	6 4.7	1 .8	0 .0	0 .0	0 .0	29 22.8	98 77.2	127 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	1.1	.0	.0	.0	17.4	81.5	92
06009	.0	1.0	.0	1.0	10.0	82.0	100
12015	.0	.0	1.3	.0	15.8	82.9	76
18021	.0	.0	.8	.8	18.8	79.7	133
TOT PCT	1 .2	1 .2	2 .5	2 .5	69 17.2	326 81.3	401 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	2.5	2.5	7.5	15.0	77.5	40
06009	.0	.0	7.4	7.4	85.2	27
12015	.0	3.8	7.7	19.2	73.1	26
18021	.0	7.4	14.6	18.5	66.7	27
TOT PCT	1 .3	4 3.3	11 9.2	18 15.0	91 75.8	120 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	1.3	.0	.0	.0	2	1.3
85/89	.0	.0	.0	.0	7.0	1.3	.0	.0	3	3.3
80/84	.0	.0	.0	1.3	6.7	35.3	25.3	1.3	175	70.0
75/79	.0	.0	.0	.0	1.3	2.0	16.0	5.3	37	74.7
70/74	.0	.0	.0	.0	.0	.0	.7	.0	1	.7
TOTAL	0	0	0	2	17	58	63	10	150	100.0
PCT	.0	.0	.0	1.3	11.3	38.7	42.0	6.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.5	.8	.0	.0	.0	.0
.7	.2	.5	1.3	.7	.0	.0	.0	.0	.0
2.3	8.2	20.7	25.3	4.2	3.7	1.0	1.3	.0	3.3
.7	1.3	4.0	7.7	4.2	2.5	2.2	.2	.0	2.0
.7	.0	.0	.0	.0	.0	.0	.0	.0	.0
4.3	9.7	25.2	34.3	9.5	7.0	3.2	1.5	.0	5.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00003	89	86	84	81	77	75	74	80.9	209
06009	91	90	87	83	79	77	75	82.9	300
12015	89	87	84	82	78	75	73	81.7	213
18021	89	85	83	81	77	75	73	80.6	415
TOT	91	89	86	82	78	75	73	81.7	1337

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	4.8	35.7	47.6	11.9	83	42		
06009	.0	.0	29.7	37.8	32.4	.0	75	37		
12015	.0	4.9	4.9	46.3	34.1	9.8	79	41		
18021	.0	.0	4.9	29.3	58.5	7.3	82	41		
TOT	0	2	17	60	70	12	80	161		

JULY

PERIOD: (PRIMARY) 1880-1972  
(OVER-ALL) 1824-1972

TABLE 17

AREA 0003 SUNDA STRAIT  
5.05 104.8EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	N FOG
7/8	.0	.5	.0	.0	.0	1	.0	.5
5	.0	.0	.0	.0	.5	1	.0	.5
3	.0	.0	.0	1.6	.0	3	.0	1.6
2	.0	.5	3.8	.0	.0	8	.0	4.4
1	.0	1.1	3.8	.5	.0	10	.5	4.4
0	.5	1.1	16.5	.0	.0	33	.0	18.1
-1	.5	2.2	12.6	.0	.0	28	.5	14.8
-2	.0	3.8	15.9	.0	.0	36	.0	19.8
-3	.5	4.9	5.5	.0	.0	20	.0	11.0
-4	.5	6.0	2.2	.0	.0	16	.0	8.8
-5	.0	6.0	.5	.0	.0	12	.0	6.0
-6	.5	2.7	.5	.0	.0	7	.0	3.8
-7/-8	1.1	.5	.0	.0	.0	3	.0	1.6
-9/-10	1.6	.0	.0	.0	.0	3	.0	1.6
-11/-13	.5	.0	.0	.0	.0	1	.0	.5
TOTAL	11	54	112	4	1	182	2	180
PCT	6.0	29.7	61.5	2.2	.5	100.0	1.1	98.9

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	1.4	.0	.0	.0	1.4	.3	.3	.0	.0	.0	.0	.7
3-4	.0	.0	.0	.0	.0	.0	.0	.0	1.4	.0	.0	.0	.0	1.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	1.4	.0	.0	.0	1.4	.3	1.7	.0	.0	.0	.0	2.0

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	1.0	1.4	.0	.0	.0	2.4	.0	.3	.0	.0	.0	.0	.3
1-2	2.0	6.4	3.7	.0	.0	.0	12.2	1.7	9.8	2.0	.0	.0	.0	13.5
3-4	.0	.0	5.1	.0	.0	.0	5.1	.0	3.0	8.8	.0	.0	.0	11.8
5-6	.0	.0	3.7	2.0	.0	.0	5.7	.0	1.4	4.4	3.4	.0	.0	9.1
7	.0	.0	.0	2.7	.0	.0	2.7	.0	.0	1.4	1.4	.0	.0	2.7
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	1.0	.0	.0	1.0	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.0	7.4	13.9	5.7	.0	.0	29.1	1.7	16.5	16.6	3.1	.0	.0	37.8

PERIOD: (OVER-ALL) 1963-1972

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5.05 104.8E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.4	.0	.0	.0	.0	1.4	.0	1.4	.0	.0	.0	.0	1.4
1-2	.0	2.4	1.0	.0	.0	.0	3.4	.0	2.7	.0	.0	.0	.0	2.7
3-4	.0	2.0	2.0	.0	.0	.0	4.0	.0	3	1.7	.0	.0	.0	2.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	2.7	1.4	.0	.0	.0	4.1	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	8.4	4.4	.0	.0	.0	12.8	.0	4.4	1.7	.0	.0	.0	4.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	1.4	.0	.0	.0	1.4	.0	1.4	.0	.0	.0	.0	1.4	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	.0	.0	.0	1.4	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	1.4	.0	.0	.0	1.4	.0	1.4	1.4	.0	.0	.0	2.7	93.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	7.9	3.9	1.3	.0	.0	.0	13.2	
1-2	5.3	22.4	9.2	.0	.0	.0	36.8	
3-4	.0	2.6	17.1	.0	.0	.0	23.7	
5-6	.0	1.3	7.9	4.3	.0	.0	14.5	
7	.0	2.6	3.9	3.9	.0	.0	10.5	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	1.3	.0	.0	1.3	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	13.2	36.8	39.5	10.5	.0	.0	100.0	76

PERIOD: (OVER-ALL) 1950-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.9	21.4	13.6	4.9	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	48	3
6-7	.0	.0	7.8	3.9	3.9	1.9	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	5
8-9	.0	1.0	.0	1.9	2.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	6
10-11	.0	.0	.0	1.0	1.9	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	8
12-13	.0	.0	1.0	1.0	1.0	1.9	.0	1.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	8
>13	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	7
INDET	7.8	4.9	.0	1.0	3.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18	2
TOTAL	13	28	23	14	16	5	1	3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	103	4
PCT	12.6	27.2	22.3	13.6	15.9	4.9	1.0	2.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1886-1969  
(OVER-ALL) 1856-1969

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5.55 104.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	MAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WJ PCPN	FGG WJ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	80.0
NE	4.4	2.2	.0	.0	.0	.0	6.6	1.1	.0	4.4	.0	2.2	.0	85.7
E	.0	3.3	2.2	.0	.0	.0	5.5	1.7	.0	3.3	.0	3.3	.0	86.2
SE	1.8	2.4	1.2	.0	.0	.0	5.4	.0	.0	.0	.0	.0	.0	93.4
S	9.2	.0	.0	.0	.0	.0	9.2	.0	5.5	.0	.0	.0	.0	85.3
SW	.0	.0	.0	.0	.0	.0	.0	.0	6.8	.0	.0	.0	.0	93.2
W	21.9	.0	.0	.0	.0	.0	21.9	.0	9.4	.0	.0	.0	.0	68.8
NW	4.2	.0	.0	.0	.0	.0	4.2	.0	4.2	.0	.0	.0	.0	91.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	70.0	.0	.0	.0	70.0	.0	.0	.0	.0	.0	.0	80.0
TOT PCT	3.2	1.8	1.4	.0	.0	.0	6.5	.5	1.8	1.4	.0	1.4	.0	88.5
TOT OBS:	217													

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	MAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WJ PCPN	FGG WJ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
0000	6.8	.0	4.5	.0	.0	.0	11.4	.0	.0	2.3	.0	.0	.0	86.4
0600	.0	1.5	1.5	.0	.0	.0	3.0	.0	.0	.0	.0	1.5	.0	95.5
1200	3.5	1.8	.0	.0	.0	.0	5.3	1.8	3.5	3.5	.0	3.5	.0	82.5
1800	3.6	5.4	.0	.0	.0	.0	8.9	.0	3.6	.0	.0	.0	.0	87.5
TOT PCT	3.1	2.2	1.3	.0	.0	.0	6.7	.4	1.8	1.3	.0	1.3	.0	88.3
TOT OBS:	223													

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.7	1.9	.4	.0	.0	.0	3.0	5.9	1.3	.0	3.0	6.9	3.7	2.8	2.9	1.0		
NE	.7	4.0	1.4	.0	.0	.0	6.1	7.7	2.6	15.7	7.5	11.1	10.1	2.8	2.4	3.1		
E	2.2	9.0	4.5	.5	.0	.0	16.1	9.0	17.3	12.5	20.8	16.3	14.5	13.9	11.7	14.5		
SE	2.5	18.3	20.5	4.2	.1	.0	45.6	12.2	53.8	45.8	44.7	37.9	42.0	54.2	45.3	49.2		
S	1.8	7.0	4.6	.5	.0	.0	13.9	9.8	12.6	8.3	8.6	12.4	14.4	12.5	19.6	18.4		
SW	.5	3.8	1.1	.0	.0	.0	5.3	7.7	3.1	6.3	4.9	6.4	5.1	5.6	6.8	6.5		
W	.3	1.6	.8	.0	.0	.0	2.7	8.4	2.3	.0	3.7	2.4	2.3	2.8	3.6	1.3		
NW	.7	2.1	.2	.0	.0	.0	3.0	6.2	2.1	6.3	4.2	2.4	1.6	5.6	3.2	3.4		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	4.0						4.0	.0	4.7	.0	2.7	4.2	6.3	.0	4.5	2.6		
TOT OBS	183	652	459	73	1	0	1367		192	12	135	167	205	18	245	193		
TOT PCT	13.4	47.7	31.5	5.3	.1	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	2.1	.9	.0	.0	.0	.0	3.0	5.9	1.2	4.3	3.6	2.1		
NE	3.0	3.1	.1	.0	.0	.0	6.1	7.7	3.4	8.7	9.5	2.7		
E	6.3	7.8	2.0	.0	.0	.0	16.1	9.0	17.0	19.3	14.5	13.0		
SE	10.0	23.0	11.7	.8	.1	.0	45.6	12.2	53.2	42.4	42.9	47.0		
S	4.8	7.2	1.8	.2	.0	.0	13.9	9.8	12.5	9.9	14.2	19.1		
SW	2.6	2.8	.1	.0	.0	.0	5.5	7.7	3.4	5.4	5.2	6.7		
W	1.3	1.4	.1	.0	.0	.0	2.7	8.4	2.2	3.3	2.4	2.6		
NW	1.9	1.1	.0	.0	.0	.0	3.0	6.2	2.5	3.6	1.9	3.3		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	4.0						4.0	.0	4.4	3.2	5.8	3.7		
TOT OBS	492	644	216	14	1	1367		9.9	204	502	223	438		
TOT PCT	36.0	47.1	15.8	1.0	.1		100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1886-1969  
(OVER-ALL) 1856-1969

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	4.4	9.8	42.6	37.3	5.9	.0	.0	.0	10.0	100.0	204
06009	3.2	12.5	49.6	29.7	5.0	.0	.0	.0	9.5	100.0	502
12015	5.8	6.3	45.3	36.3	6.7	.0	.0	.0	10.2	100.0	223
18021	3.7	7.3	49.1	34.7	5.0	.2	.0	.0	10.1	100.0	438
TOT	54	129	652	458	73	1	0	9.9			1367
PCT	4.0	9.4	47.7	33.5	5.3	.1	.0		100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL PCT	MEAN CLOUD COVER
N	.0	.0	.0	.0		.0
NE	2.2	1.1	1.1	.0		3.2
E	6.3	4.9	8.5	1.1		4.0
SE	14.8	15.7	15.9	1.1		3.5
S	5.8	4.7	5.2	.0		3.4
SW	2.7	1.1	3.3	1.1		4.2
W	.0	.0	.8	1.1		7.5
NW	.0	.0	.3	.0		7.0
VAR	.0	.0	.0	.0		.0
CALM	1.1	.0	.0	.0		2.0
TOT OBS	30	25	32	4	91	3.7
TOT PCT	33.0	27.5	35.2	4.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	100	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	499	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	3.3
.0	.0	.0	1.1	2.2	.0	.0	.0	.0	.0	.0	17.6
.0	.0	.0	3.3	.0	3.0	.0	.0	.0	.0	.0	40.9
.0	.0	.0	.0	.0	1.4	.0	.0	.0	.0	.8	13.5
.0	.0	.0	.0	.0	.0	1.1	.0	.0	.0	.0	7.1
.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	76
.0	.0	.0	4.4	3.3	6.6	1.1	.0	.0	1.1	83.5	91
											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSMY (NH)

CEILING (FEET)	VSBY (NH)							
	• OR >10	• OR >5	• OR >2	• OR >1	• OR >1/2	• OR >1/4	• OR >5000	• OR >0
• OR >6500	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
• OR >5000	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
• OR >3500	1.1	1.1	2.2	2.2	2.2	2.2	2.2	2.2
• OR >2000	3.3	4.3	8.7	8.7	8.7	8.7	8.7	8.7
• OR >1000	6.5	7.6	12.0	12.0	12.0	12.0	12.0	12.0
• OR >600	10.9	12.0	16.3	16.3	16.3	16.3	16.3	16.3
• OR >300	10.9	12.0	16.3	16.3	16.3	16.3	16.3	16.3
• OR >150	10.9	12.0	16.3	16.3	16.3	16.3	16.3	16.3
• OR > 0	10.9	12.0	16.3	16.3	16.3	16.3	16.3	16.3
TOTAL	10	11	15	15	15	15	15	15

TOTAL NUMBER OF OBS: 92

PCT FREQ NH <5/8: 83.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

C	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
11.0	21.0	23.0	13.0	12.0	7.0	3.0	6.0	2.0	.0	100

PERIOD: (PRIMARY) 1986-1969  
(OVER-ALL) 1856-1969

AUGUST

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5.55 104.8F

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.5	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.5	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.5	
	NO PCP	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.5	
	TOT %	.0	.2	.2	.5	.0	.0	.0	.0	.0	.0	.9	
2<5	PCP	.0	.0	.0	.7	.2	.0	.8	.1	.0	.0	1.8	
	NO PCP	.0	.0	.0	.9	.0	.9	.0	.0	.0	.5	1.8	
	TOT %	.0	.0	.0	1.6	.2	.9	.8	.1	.0	.5	3.7	
5<10	PCP	.0	.5	.7	.0	.5	.0	.0	.0	.0	.0	2.3	
	NO PCP	1.4	5.9	6.0	5.5	1.4	1.3	.9	.9	.0	.0	23.5	
	TOT %	1.4	6.1	6.7	6.7	1.8	1.3	.9	.9	.0	.0	25.8	
10+	PCP	.0	.5	.5	.0	.5	.0	.0	.0	.0	.0	1.4	
	NO PCP	.9	3.7	13.5	29.5	10.0	5.1	2.0	1.7	.0	1.4	67.7	
	TOT %	.9	4.1	13.9	29.5	10.5	5.1	2.0	1.7	.0	1.4	69.1	
TOT OBS													217
TOT PCT		2.3	10.3	20.9	36.2	12.6	6.8	3.7	2.6	.0	2.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.1	.1	.2	.0	.0	.0	.0	.0	.0	.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.1	.2	.0	.0	.0	.0	.0	.0	.5	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.0	.0	.2	.6	.1	.2	.4	.1	.0	.0	1.6	
	11-21	.0	.2	.0	.9	.5	.0	.0	.0	.0	.0	1.6	
	22+	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.2	.2	1.7	.6	.2	.4	.1	.0	.2	3.7	
5<10	0-3	.2	.2	.3	.1	.0	.2	.0	.0	.0	.0	1.1	
	4-10	.5	2.4	3.1	2.4	1.6	.6	.1	.6	.0	.0	11.0	
	11-21	.2	.6	1.5	3.0	.9	.0	.3	.1	.0	.0	6.7	
	22+	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.9	3.2	4.9	5.7	2.3	.9	.5	.7	.0	.0	19.0	
10+	0-3	.8	.2	1.5	1.3	.9	.6	.6	.6	.0	2.3	8.7	
	4-10	.6	2.3	7.6	16.3	6.5	2.5	1.3	1.2	.0	.0	38.3	
	11-21	.0	.8	2.5	17.4	6.2	1.4	.1	.0	.0	.0	28.4	
	22+	.0	.0	.2	.9	.0	.0	.0	.0	.0	.0	1.1	
	TOT %	1.4	3.3	11.9	35.9	13.6	4.5	2.0	1.8	.0	2.3	76.6	
TOT OBS													436
TOT PCT		2.3	6.8	17.1	43.6	16.5	5.6	2.9	2.5	.0	2.8	100.0	

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PERIOD: (PRIMARY) 1880-1969  
(OVER-ALL) 1856-1969AREA 0003 SUND4 STRAIT  
5.35 104.8E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

400R (GMT)	000 149	100 299	300 599	400 999	500 1999	600 3499	700 4999	800 6499	900 7999	1000+ 8000+	TOTAL NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	.0	3.7	7.4	3.7	.0	.0	.0	14.8	27
06009	.0	.0	.0	.0	6.7	.0	.0	.0	.0	.0	6.7	30
12015	.0	.0	.0	14.3	0	9.5	.0	.0	.0	4.8	28.6	21
18021	.0	.0	.0	5.3	.0	10.5	.0	.0	.0	.0	15.8	19
TOT PCT	0 .0	0 .0	0 .0	4 4.1	3 3.1	6 6.7	1 1.0	0 .0	0 .0	1 1.0	15 15.5	97 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

400R (GMT)	<1/2	1/2-1	1-2	2-5	5-10	10+	TOTAL OBS
00003	1.3	.0	.0	7.9	16.4	72.4	73
06009	.0	.0	.0	1.6	17.6	80.8	129
12015	.0	.0	1.0	4.0	19.0	76.0	100
18021	.0	.0	.7	2.8	22.5	73.9	142
TOT PCT	1 .2	0 0	2 .5	16 3.6	87 19.6	337 76.1	443 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

400R (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	12.0	4.0	84.0	23
06009	.0	.0	.0	7.1	92.9	28
12015	.0	.0	23.8	9.5	66.7	21
18021	.0	.0	5.6	11.1	83.3	18
TOT PCT	0 .0	0 .0	9 9.8	7 7.6	76 82.6	92 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	2.3	2.3	.0	.0	6	4.7
80/84	.0	.0	.0	.0	6.3	32.8	25.8	2.3	86	47.2
75/79	.0	.0	.0	.0	.0	3.9	17.2	7.0	30	28.1
TOTAL	0	0	0	0	11	50	55	12	128	100.0
PCT	.0	.0	.0	.0	8.6	39.1	43.0	9.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	1.6	.0	.8	.6	1.0	.0	.8	.0	.0
80/84	2.3	8.4	16.6	23.4	7.6	4.5	2.1	.6	.0	1.6
75/79	.0	.0	2.7	17.8	3.5	2.5	1.6	.0	.0	.0
TOTAL	2.3	10.0	19.3	42.0	11.7	8.0	7.7	1.4	.0	.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

400R (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	84	84	80	77	74	73	80.3	198
06009	93	91	87	83	79	76	75	82.8	469
12015	85	84	83	81	79	77	76	81.1	217
18021	86	85	83	80	77	75	73	80.2	430
TOT	93	88	85	81	78	76	73	81.3	1314

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

400R (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	7.1	28.6	60.7	3.6	81	28		
06009	.0	.0	23.0	52.8	16.7	5.6	74	36		
12015	.0	.0	3.1	34.4	50.0	12.5	82	37		
18021	.0	.0	.0	37.1	48.6	14.3	82	35		
TOT	0	0	12	51	56	12	80	131		



PERIOD: (PRIMARY) 1886-1969  
(OVER-ALL) 1856-1969

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5.5S 104.8E

TABLE 17

PCT FRFO OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
6	.0	.5	.5	.5	.5	4	.0	2.2
5	.0	.0	.5	.0	.5	2	.0	1.1
4	.0	.0	.5	.0	.0	1	.0	.5
3	.0	.0	.5	.0	.0	1	.0	.5
2	.0	.0	3.8	1.1	.0	9	.0	4.9
1	.0	.0	7.6	.0	.0	14	.0	7.6
0	.5	3.8	15.1	1.1	.0	38	.0	20.5
-1	.0	3.2	15.7	.0	.0	35	.0	18.9
-2	.0	11.4	14.1	.0	.0	47	.0	25.4
-3	.0	3.8	1.6	.0	.0	10	.0	5.4
-4	.0	7.0	1.6	.5	.0	17	.0	9.2
-5	.0	2.2	.5	.0	.0	5	.0	2.7
-6	.0	1.1	.0	.0	.0	2	.0	1.1
TOTAL	1		113	6	2	185	0	185
PCT	.5	33.0	62.2	9.2	1.1	100.0		100.0

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FRFO OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4
3-4	.0	.0	.0	.0	.0	.0	.0	.0	3.3	.0	.0	.0	.0	3.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	3.7	.0	.0	.0	.0	3.7

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	1.6	1.6	.0	.0	.0	.0	3.3
1-2	.0	10.2	1.6	.0	.0	.0	11.9	.0	11.9	6.6	.0	.0	.0	18.4
3-4	.0	6.6	.0	.0	.0	.0	6.6	.0	8.2	7.0	.0	.0	.0	15.2
5-6	.0	1.2	.0	.0	.0	.0	1.2	.0	.4	7.0	.0	.0	.0	7.4
7	.0	.0	1.6	.0	.0	.0	1.6	.0	.0	3.3	.0	.0	.0	3.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	.0	.0	.0	1.6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	18.0	9.3	.0	.0	.0	21.3	1.6	22.1	25.4	.0	.0	.0	49.2

PERIOD: (OVER-ALL) 1963-1969

AUGUST

AREA 0003, SUNDA STRAIT  
5.55 104.8E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	1.6	7.8	.0	.0	.0	.0	9.4	1.6	21.5	.0	.0	.0	.0	4.1
3-4	.0	1.6	4.5	.0	.0	.0	6.1	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	1.2	.0	.0	.0	1.2	.0	.0	1.6	.0	.0	.0	1.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.6	9.4	5.7	.0	.0	.0	16.8	1.6	21.5	1.6	.0	.0	.0	5.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	96.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.9	1.6	.0	.0	.0	.0	6.6	
1-2	3.3	32.9	8.2	.0	.0	.0	44.3	
3-4	.0	19.7	11.5	.0	.0	.0	31.1	
5-6	.0	1.6	9.8	.0	.0	.0	11.5	
7	.0	.0	4.9	.0	.0	.0	4.9	
8-9	.0	.0	1.6	.0	.0	.0	1.6	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.2	55.7	36.1	.0	.0	.0	100.0	61

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.5	20.2	12.4	13.5	3.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	48	3
6-7	.0	1.1	11.2	5.6	2.2	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21	5
8-9	.0	.0	1.1	4.5	1.1	1.1	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	6
10-11	.0	.0	2.2	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	4
12-13	.0	.0	1.1	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	7
>13	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	5
INDEX	2.2	.0	2.2	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	89	2
TOTAL	6	19	27	23	7	3	4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	4
PCT	6.7	21.3	30.3	25.8	7.9	3.4	4.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		

SEPTEMBER

PERIOD: (PRIMARY) 1882-1971  
(OVER-ALL) 1854-1971

AREA 0003 SUNDA STRAIT  
5.5S 104.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLNG DUST SNOW	NO SIG MEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	5.9	.0	.0	.0	.0	.0	94.1
E	4.4	4.4	.0	.0	.0	.0	.0	8.9	.0	8.9	.0	.0	.0	.0	86.7
SE	3.3	.0	.0	.0	.0	.0	.0	3.3	5.0	1.7	.0	.0	1.7	.0	88.3
S	3.5	.0	.0	.0	.0	.0	.0	2.5	3.5	.0	.0	.0	6.1	.0	86.8
SW	5.4	.0	.0	.0	.0	.0	.0	5.4	.0	.0	5.4	.0	6.8	.0	82.4
W	.0	.0	.0	.0	.0	.0	.0	.0	30.8	.0	.0	.0	.0	.0	69.2
NW	.0	23.5	.0	.0	.0	.0	.0	23.5	23.5	.0	23.5	.0	.0	.0	29.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	3.1	1.2	.0	.0	.0	.0	.0	4.3	4.3	1.8	1.2	.0	2.5	.0	86.5
TOT OBS:	163														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA	
0003	.0	.0	.0	.0	.0	.0	.0	.0	6.7	.0	.0	.0	4.4	.0	88.9	
0609	2.3	.0	.0	.0	.0	.0	.0	2.3	6.8	.0	.0	.0	2.3	.0	88.6	
1219	5.6	2.8	.0	.0	.0	.0	.0	5.3	2.8	2.8	.0	.0	.0	.0	86.1	
1821	6.4	2.1	.0	.0	.0	.0	.0	8.5	.0	6.4	4.3	.0	2.1	.0	80.9	
TOT PCT TQT CDS:	3.5 172	1.2	.0	.0	.0	.0	.0	4.7	4.1	2.3	1.2	.0	2.3	.0	86.0	

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	1.0	1.8	.2	.0	.0	.0		3.0	5.5	2.8	5.0	2.5	7.5	3.9	8.3	2.5	.5	
NE	.9	3.9	.8	.1	.0	.0		5.6	7.4	2.3	15.0	7.1	7.9	7.2	8.3	4.1	4.1	
E	1.2	7.5	3.5	.6	.0	.0		12.8	9.5	14.2	15.0	14.9	13.2	10.4	16.7	10.2	13.3	
SE	1.9	17.5	21.8	3.9	.1	.0		45.3	12.4	53.7	45.0	42.3	39.3	37.2	50.0	46.0	53.1	
S	1.1	9.2	6.4	.9	.0	.0		17.5	10.5	14.8	.0	15.4	17.1	25.1	8.3	18.7	16.4	
SW	.8	3.9	1.1	.1	.0	.0		5.8	7.8	4.8	5.0	5.0	5.0	9.3	8.3	5.9	5.3	
W	.7	2.1	1.0	.1	.0	.0		3.9	8.1	2.9	15.0	4.4	3.6	4.0	.0	3.3	4.3	
NW	.8	.9	.4	.1	.1	.0		2.1	5.0	2.2	.0	3.0	3.6	.3	.0	3.1	1.4	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	3.8							3.8	.0	2.3	.0	3.5	2.9	2.8	.0	6.2	1.4	
TOT OBS	154	590	445	74	3	.0	1266		10.2	171	10	310	140	181	6	241	207	
TOT PCT	12.2	46.6	39.7	5.8	.2	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	2.2	.8	.0	.0	.0			3.0	5.5	2.9	4.1	6.0	1.6
NE	2.9	2.3	.4	.0	.0			5.6	7.4	3.0	7.3	7.2	4.1
E	4.7	6.3	1.7	.1	.0			12.8	9.5	14.2	14.4	10.6	11.6
SE	9.0	23.9	11.5	.8	.0			45.3	12.4	53.2	41.3	37.6	49.3
S	5.0	9.2	3.3	.0	.0			17.5	10.5	14.0	15.9	24.6	17.6
SW	2.8	2.7	.3	.0	.0			5.8	7.8	4.8	5.0	9.2	5.6
W	1.9	1.7	.3	.0	.0			3.9	8.1	2.6	4.1	3.9	3.8
NW	1.4	.5	.3	.1	.0			2.3	8.0	2.1	3.2	.3	2.3
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0
CALM	3.8							3.8	.0	2.2	4.7	2.7	4.0
TOT OBS	428	600	225	13	.0	1266		10.2		181	430	187	448
TOT PCT	33.8	47.4	17.8	1.0	.0			100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1882-1971  
(OVER-ALL) 1854-1971

SEPTEMBER

AREA 0003 SUNDRA STRAIT  
5.55 104.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	2.2	7.7	46.4	36.5	6.6	.6	.0	10.7	100.0	181
06009	4.7	12.0	47.1	31.8	4.2	.2	.0	9.3	100.0	450
12015	2.7	8.0	43.9	37.4	8.0	.0	.0	10.8	100.0	177
18021	4.0	5.1	47.3	37.1	6.3	.2	.0	10.6	100.0	448
TOT	48	106	590	445	74	3	0	10.2		1766
PCT	3.8	8.4	46.6	35.2	5.8	.2	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-10	TOTAL OBS	MEAN CLOUD COVER
N	1.0	.0	.0	.0		2.0
NE	2.6	1.3	2.6	.0		3.0
E	3.6	5.2	2.9	1.3		3.9
SE	9.1	7.8	18.8	5.2		4.8
S	5.2	3.6	9.1	1.3		4.4
SW	5.5	2.9	2.9	1.6		3.4
W	.0	.0	1.3	1.0		7.4
NW	.3	.0	1.3	1.3		6.4
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	1.3	.0		5.0
TOT OBS	21	16	31	9	77	4.4
TOT PCT	27.3	20.8	40.3	11.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NM >4/8)  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NM <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY MGT	OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	
NE	.0	.0	.0	1.3	1.3	.0	.0	.0	.0	.0	3.9	
E	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	11.7	
SE	.0	.0	.0	1.3	4.2	2.6	.0	.0	1.3	2.6	28.9	
S	.0	.0	.0	.0	2.3	.0	.0	.0	.0	.0	16.9	
SW	.0	.0	.0	.0	1.6	.0	.0	.0	.0	.0	11.4	
W	.0	.0	.0	.0	2.3	.0	.0	.0	.0	.0	.0	
NW	.0	.0	.0	1.3	1.3	.0	.0	.0	.0	.0	.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	
TOT OBS	0	1	3	10	2	0	0	0	1	2	58	77
TOT PCT	.0	.0	1.3	3.9	13.0	2.6	.0	.0	1.3	2.6	75.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				VSBY (NM)				OR
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0	
OR >6500	2.6	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
OR >5000	2.6	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
OR >3500	3.8	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
OR >2000	5.1	6.4	7.7	7.7	7.7	7.7	7.7	7.7	7.7
OR >1000	15.4	19.2	20.5	20.5	20.5	20.5	20.5	20.5	20.5
OR >600	19.2	23.1	24.4	24.4	24.4	24.4	24.4	24.4	24.4
OR >300	19.2	24.4	25.6	25.6	25.6	25.6	25.6	25.6	25.6
OR >150	19.2	24.4	25.6	25.6	25.6	25.6	25.6	25.6	25.6
OR >0	19.2	24.4	25.6	25.6	25.6	25.6	25.6	25.6	25.6
TOTAL	15	19	20	20	20	20	20	20	20

TOTAL NUMBER OF OBS: 78

PCT FREQ NM <5/8: 74.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
12.5	14.3	22.5	17.5	11.3	7.5	8.8	1.3	7.5	.0	80

## SEPTEMBER

PERIOD: (PRIMARY) 1962-1971  
(OVER-ALL) 1954-1971AREA 0003 SUNDA STRAIT  
5.55 104.8E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	
	TOT %	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	1.8	
5<10	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	
	NO PCP	3.4	3.1	4.8	4.6	2.5	2.9	.0	.3	.0	.0	22.1	
	TOT %	3.4	3.1	5.4	5.2	2.5	2.9	.0	.3	.0	.0	23.3	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	
	NO PCP	1.7	6.7	7.2	30.2	13.8	7.8	2.0	1.1	.0	.0	71.2	
	TOT %	1.7	6.7	7.8	30.2	13.8	7.8	2.0	1.7	.0	.0	72.4	
TOT OBS													163
TOT PCT													5.1 12.4 13.8 36.7 17.5 11.3 2.0 2.6 .0 .0 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3	
	4-10	.0	.0	.0	.0	.3	.3	.0	.0	.0	.0	.6	
	11-21	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.1	.0	.3	.3	.3	.0	.0	.0	.0	1.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3	
	4-10	.0	.0	.3	.6	.3	.0	.0	.0	.0	.0	1.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.3	.6	.3	.0	.0	.3	.0	.0	1.4	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	
	4-10	.0	.0	.3	.3	.0	.0	.3	.0	.0	.0	.8	
	11-21	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	
	TOT %	.0	.0	.3	.8	.0	.0	.3	.0	.0	.3	1.7	
5<10	0-3	.4	.1	.3	.0	.0	.0	.0	.0	.0	.0	.8	
	4-10	1.4	1.6	1.1	2.3	.9	.5	.0	.1	.0	.0	7.9	
	11-21	.0	.1	1.3	3.0	.7	.8	.0	.0	.0	.0	5.9	
	22+	.0	.0	.2	.4	.2	.0	.0	.0	.0	.0	.8	
	TOT %	1.8	1.8	2.9	5.6	1.8	1.3	.0	.1	.0	.0	15.5	
10+	0-3	.6	1.1	.0	1.7	.6	1.1	.6	.8	.0	1.1	7.6	
	4-10	.9	2.8	7.6	14.5	9.3	3.2	.7	.2	.0	.0	39.3	
	11-21	.0	.6	1.7	20.7	5.8	1.3	.4	.4	.0	.0	30.8	
	22+	.0	.0	.1	1.8	.3	.0	.0	.3	.0	.0	2.5	
	TOT %	1.5	4.5	9.4	38.8	16.0	5.6	1.6	1.8	.0	1.1	80.2	
TOT OBS													354
TOT PCT													3.5 6.5 12.9 46.1 18.4 7.2 1.9 2.2 .0 1.4 100.0

SEPTEMBER

PERIOD: (PRIMARY) 1982-1971  
(OVER-ALL) 1854-1971

AREA 0003 SUNDIA STRAIT  
5.55 104.8E

TABLE 10

PERCENT FREQUENCY OF CRITTING HEIGHTS (FEET/NM >4/8) AND  
OCCURRENCE U. N. 1/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	7.4	22.2	3.7	.0	.0	.0	.0	33.3	66.7	27
06009	.0	.0	.0	.0	11.1	5.6	.0	.0	.0	.0	16.7	83.3	18
12015	.0	.0	.0	.0	5.9	.0	5.9	.0	.0	.0	11.8	88.2	17
18021	.0	.0	5.6	5.6	5.6	.0	.0	.0	5.6	11.1	33.3	66.7	18
TOT	0	0	1	3	10	2	1	0	1	2	20	60	80
PCT	.0	.0	1.3	3.8	12.5	2.5	1.3	.0	1.3	2.5	25.0	75.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	1.4	1.4	16.9	80.3	71
06009	1.0	.0	1.0	2.0	15.2	80.8	99
12015	1.5	.0	.0	1.5	19.4	77.6	67
18021	1.6	.0	2.4	1.6	15.9	78.6	126
TOT	4	0	5	6	60	288	363
PCT	1.1	.0	1.4	1.7	16.5	79.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET/NM >4/8) BY HOUR

HOURL (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	11.1	22.2	66.7	27
06009	.0	.0	.0	17.6	82.4	17
12015	.0	.0	.0	12.5	87.5	16
18021	.0	5.6	16.7	22.2	61.1	18
TOT	0	1	6	15	57	78
PCT	.0	1.3	7.7	19.2	73.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	4.0	4.0	.0	.0	8	8.0
80/84	.0	.0	.0	.0	4.0	33.0	42.0	.0	79	79.0
75/79	.0	.0	.0	.0	.0	1.0	7.0	5.0	13	13.0
TOTAL	0	0	0	0	8	38	49	5	100	100.0
PCT	.0	.0	.0	.0	8.0	38.0	49.0	5.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	1.0	3.0	2.0	2.0	.0	.0	.0	.0
80/84	5.8	11.0	7.0	28.3	11.5	10.0	1.8	2.8	.0	1.0
75/79	.0	.0	4.0	5.0	2.0	1.0	.0	1.0	.0	.0
TOTAL	5.8	11.0	12.0	36.3	15.5	13.0	1.8	3.8	.0	1.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	89	85	83	81	77	73	70	80.6	181
06009	94	91	87	83	79	77	77	83.0	432
12015	89	86	84	82	78	76	76	81.5	187
18021	89	86	84	80	77	74	73	80.4	438
TOT	94	89	86	82	78	76	70	81.5	1238

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.3	46.7	40.0	10.0	81	30
06009	.0	.0	35.3	28.6	38.1	.0	74	21
12015	.0	.0	.0	47.8	52.2	.0	80	23
18021	.0	.0	.0	28.1	62.5	9.4	83	32
TOT	0	0	8	40	52	6	80	106

SEPTEMBER

PERIOD: (PRIMARY) 1882-1971  
(OVER-ALL) 1854-1971

AREA 0003 SUNDA STRAIT  
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	77 60	81 84	85 88	89 92	>92	TOT	N FOG	WJ FOG
11/13	.0	.0	.0	.0	.7	1	.0	.7
7/8	.0	.7	.0	.0	.0	1	.0	.7
4	.0	.7	.0	1.4	.0	3	.0	2.1
3	.0	.7	.0	.0	.0	1	.0	.7
2	.0	1.4	2.1	.0	.0	3	.0	3.6
1	.0	2.1	2.9	.0	.0	7	.0	5.0
0	2.9	18.6	1.4	.0	.0	32	.0	22.9
-1	4.3	17.9	.0	.0	.0	31	.0	22.1
-2	9.3	12.1	.0	.0	.0	30	.7	20.7
-3	5.7	3.6	.7	.0	.0	14	.0	10.0
-4	5.7	2.1	.0	.0	.0	11	.0	7.9
-5	1.4	.0	.0	.0	.0	2	.0	1.4
-6	.7	.0	.0	.0	.0	1	.0	.7
-9/-10	.7	.0	.0	.0	.0	1	.0	.7
TOTAL	43	84	10	2	1	140	1	139
PCT	30.7	60.0	7.1	1.4	.7	100.0	.7	99.3

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.8	.0	.0	.0	.0	1.8	.0	2.4	.0	.0	.0	.0	2.4
1-2	.0	.0	.0	.0	.0	.0	.0	.0	2.4	.0	.0	.0	.0	4.8
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.8	.0	.0	.0	.0	1.8	.0	4.8	2.4	.0	.0	.0	7.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	2.4	.0	.0	.0	.0	2.4
1-2	.0	12.5	.0	.0	.0	.0	12.5	2.4	5.4	7.1	.0	.0	.0	14.9
3-4	.0	.0	2.4	.0	.0	.0	2.4	.0	9.3	4.8	.0	.0	.0	14.9
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.8	.0	.0	.0	4.8
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	1.8	.0	.0	1.8	.0	.0	.0	1.2	.0	.0	1.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	12.5	2.4	1.8	.0	.0	16.7	2.4	17.3	16.7	1.2	.0	.0	37.5

PERIOD: (OVER-ALL) 1963-1971

SEPTEMBER

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	4.2	.0	.0	.0	.0	4.2	2.4	.6	.0	.0	.0	.0	3.0
1-2	.0	5.4	.0	.0	.0	.0	5.4	.0	3.0	.0	.0	.0	.0	8.3
3-4	.0	.0	2.4	.0	.0	.0	2.4	.0	.0	2.4	.0	.0	.0	2.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	.0	.0	.0	2.4
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	1.8	.0	.0	1.8	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	9.5	6.5	1.8	.0	.0	17.9	2.4	6.0	7.7	.0	.0	.0	16.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	2.4	.0	.0	.0	.0	2.4	.0	.6	.0	.0	.0	.0	.6	
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	2.4	.0	.0	.0	.0	2.4	.0	.6	.0	.0	.0	.0	.6	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.4	14.3	.0	.0	.0	.0	16.7	
1-2	2.4	31.0	16.7	.0	.0	.0	50.0	
3-4	.0	9.5	11.9	.0	.0	.0	21.4	
5-6	.0	.0	7.1	.0	.0	.0	7.1	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	4.8	.0	.0	4.8	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.8	54.8	35.7	4.8	.0	.0	100.0	42

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	10.4	28.4	14.9	4.5	.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	41	2
6-7	.0	3.0	4.5	4.5	6.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	5
8-9	.0	.0	1.5	4.5	1.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	6
10-11	.0	.0	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	8
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	3.0	3.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	2
TOTAL	9	23	16	9	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	37	3
PCT	13.4	34.2	23.9	13.4	7.5	7.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	



PERIOD: (PRIMARY) 1879-1971  
(OVER-ALL) 1854-1971

OCTOBER

AREA 0003 SUNDA STRAIT  
5.85 104.7E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WEA
N	4.8	.0	4.8	.0	.0	.0	.0	9.5	.0	.0	.0	.0	9.5	.0	81.0
NE	4.7	.0	.0	.0	.0	.0	.0	4.7	.0	18.6	.0	.0	18.6	.0	58.1
E	.0	.0	.0	.0	.0	.0	.0	.0	2.7	3.6	.0	.0	1.8	.0	92.0
SE	.0	.0	1.9	.0	.0	.0	.0	1.9	2.4	7.6	1.9	.0	1.9	.0	84.4
S	.0	1.5	.0	.0	.0	.0	.0	1.5	2.9	8.8	5.8	.0	4.4	.0	76.6
SW	6.7	10.0	.0	.0	.0	.0	.0	16.7	6.7	6.7	.0	.0	6.7	.0	63.3
W	8.2	16.3	.0	.0	.0	.0	.0	24.5	.0	.0	.0	.0	8.2	.0	67.3
NW	31.6	.0	5.3	.0	.0	.0	.0	36.8	.0	10.5	.0	.0	.0	.0	63.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	80.0
TOT PCT	3.4	2.2	1.1	.0	.0	.0	.0	6.7	2.2	6.7	1.7	.0	5.1	.0	78.1
TOT OBS:	178														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WEA
00003	7.7	2.6	2.6	.0	.0	.0	.0	12.8	2.6	.0	2.6	.0	7.7	.0	74.4
06009	.0	1.8	.0	.0	.0	.0	.0	1.8	1.8	.0	.0	.0	3.9	.0	93.0
12015	4.2	.0	2.1	.0	.0	.0	.0	6.3	2.1	8.3	.0	.0	2.1	.0	81.3
18021	4.0	6.0	.0	.0	.0	.0	.0	10.0	4.0	18.0	4.0	.0	8.0	.0	58.0
TOT PCT	3.4	2.6	1.0	.0	.0	.0	.0	7.2	2.6	6.7	1.5	.0	5.2	.0	77.3
TOT OBS:	194														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	1.0	2.1	.2	.0	.0	.0		3.3	6.5	.9	.0	3.7	4.9	3.6	14.3	2.4	1.8	
NE	1.4	2.8	.6	.0	.0	.0		4.8	6.2	2.7	25.0	5.4	7.3	5.3	.0	5.2	2.0	
E	2.0	5.4	2.3	.0	.0	.0		9.7	7.7	11.7	25.0	12.5	7.0	8.9	14.3	8.9	7.7	
SE	1.6	14.7	17.7	7.7	.0	.0		35.7	11.8	41.1	.0	31.9	35.2	36.1	35.7	36.3	36.5	
S	2.2	9.4	8.4	1.2	.0	.0		21.2	10.7	18.8	.0	17.3	23.6	24.4	7.1	23.1	21.9	
SW	.8	5.5	1.9	.0	.0	.0		8.2	8.1	8.5	.0	9.3	7.0	7.1	14.3	9.1	7.4	
W	.8	3.7	1.8	.3	.0	.0		6.5	9.2	7.0	12.5	7.0	6.1	4.8	.0	5.8	8.7	
NW	.4	3.2	1.7	.1	.0	.0		5.4	9.3	5.8	37.5	6.2	4.6	3.1	14.3	5.0	6.9	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	5.2							5.2	.0	3.6	.0	6.4	4.3	4.8	.0	4.3	7.1	
TOT OBS	192	589	428	48	0	0	1257	9.5		165	4	281	164	209	7	231	196	
TOT PCT	15.3	46.9	34.0	3.8	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	1.8	1.4	.2	.0	.0		3.3	6.5	.9	4.2	5.9	2.1		
NE	2.8	1.9	.0	.0	.0		4.8	6.2	3.3	6.1	5.1	3.7		
E	4.9	4.1	.8	.0	.0		9.7	7.7	12.0	10.5	9.0	8.3		
SE	7.1	20.1	8.2	.3	.0		35.7	11.8	40.1	32.1	36.1	36.4		
S	5.9	11.5	3.6	.2	.0		21.2	10.7	18.3	19.7	23.8	22.5		
SW	3.7	3.9	.6	.0	.0		8.2	8.1	8.3	8.5	7.3	8.3		
W	3.0	2.5	.9	.1	.0		6.5	9.2	7.1	6.7	4.6	7.1		
NW	2.0	2.9	.5	.0	.0		5.4	9.3	6.5	3.6	3.5	5.9		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	5.2						5.2	.0	3.6	5.6	4.6	5.6		
TOT OBS	496	608	185	8	0	1257		9.5	169	445	216	427		
TOT PCT	36.3	48.4	14.7	.6	.0		100.0		100.0	100.0	100.0	100.0		

OCTOBER

PERIOD: (PRIMARY) 1879-1971  
(OVP-ALL) 1854-1971AREA 0003 SUNDA STRAIT  
5.65 104.7E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000Z	3.6	9.5	45.6	38.5	3.0	.0	.0	10.0	100.0	169
0600Z	5.6	10.6	46.3	34.6	2.7	.0	.0	9.2	100.0	445
1200Z	4.6	12.5	43.5	30.1	3.2	.0	.0	9.6	100.0	216
1800Z	5.6	8.7	49.4	30.7	5.6	.0	.0	9.4	100.0	427
TOT	65	127	289	428	48	.0	.0	9.3		1257
PCT	5.2	10.1	46.9	34.0	3.9	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL CLOUD OBS	MEAN CLOUD COVER
N	.0	.0	2.4	.0		6.2
NE	1.2	.0	1.0	.0		2.4
E	6.5	4.6	5.0	3.0		4.3
SE	3.1	17.3	17.7	7.2		5.3
S	3.1	3.1	9.6	1.7		5.0
SW	1.4	.5	3.8	1.9		5.6
W	1.0	1.7	2.4	1.9		5.1
NW	.0	.0	3.4	1.0		7.0
VAR	.0	.0	.0	.0		.0
CALM	1.9	1.0	1.0	.0		3.2
TOT OBS	19	24	43	18	104	5.0
TOT PCT	18.3	23.1	41.3	17.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NM <5/8 ANY HGT	TOTAL OBS
	149	297	497	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.0	1.4	.0	.0	.0	.0	.0	1.0	
NE	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	1.2
E	.0	.0	.0	.0	1.7	.0	.0	.0	.0	.0	.0	17.3
SE	.0	.0	.0	7.0	3.1	1.2	1.0	.0	1.0	.0	.0	22.1
S	.0	.0	.0	2.4	.0	1.0	.0	.0	.0	1.0	.0	13.2
SW	.0	.0	.0	.2	.0	.0	1.0	.0	.0	.0	.0	6.5
W	.0	.0	.0	.0	.0	1.0	1.9	.0	.0	.0	.0	4.1
NW	.0	.0	.0	.0	1.4	.0	1.0	.0	.0	.0	.0	1.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.8
TOT OBS	0	0	0	10	9	4	5	0	1	1	74	104
TOT PCT	.0	.0	.0	9.6	8.7	3.8	4.8	.0	1.0	1.0	71.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				OR			
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
OR >6500	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
OR >5000	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
OR >3500	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
OR >2000	9.0	10.8	10.8	10.8	10.8	10.8	10.8	10.8
OR >1000	16.2	18.9	19.8	19.8	19.8	19.8	19.8	19.8
OR >600	23.4	27.9	29.7	29.7	29.7	29.7	29.7	29.7
OR >300	23.4	27.9	29.7	29.7	29.7	29.7	29.7	29.7
OR >150	23.4	27.9	29.7	29.7	29.7	29.7	29.7	29.7
OR >0	23.4	27.9	29.7	29.7	29.7	29.7	29.7	29.7
TOTAL	26	31	33	33	33	33	33	33

TOTAL NUMBER OF OBS: 111

PCT FREQ NM &lt;5/8: 70.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	7.8	13.9	21.7	14.8	13.0	7.0	9.6	2.6	9.6	.0	115

PERIOD: (PRIMARY) 1879-1971  
(OVER-ALL) 1854-1971

OCTOBER

APEA 0003 SUNDIA STRAIT  
5.65 104.7E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	1.1	.3	.3	.6	.6	.0	.0	.0	.0	.6	3.9
	TOT %	.0	1.1	.3	.3	.6	.6	.0	.0	.0	.0	.6	4.5
2<3	PCP	.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	1.1	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	1.1	.0
5<10	PCP	.3	.3	.0	.6	.3	.8	1.1	.0	.0	.0	3.4	.0
	NO PCP	2.2	1.6	3.4	7.2	6.6	1.1	.0	.0	.0	.0	21.9	.0
	TOT %	2.5	1.7	3.4	7.7	6.9	2.0	1.1	.0	.0	.0	25.3	.0
10+	PCP	.3	.0	.0	.0	.0	.6	.6	.3	.0	.0	1.7	.0
	NO PCP	2.4	3.2	12.1	21.1	11.8	5.9	3.2	3.4	.0	.0	66.9	.0
	TOT %	2.8	3.2	12.1	21.1	11.8	5.9	3.7	3.7	.0	.0	68.5	.0
TOT OBS													
TOT PCT													
		5.4	6.0	15.7	29.6	19.2	8.4	6.9	5.3	.0	2.8	100.0	178

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.3	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.3	.0
1<2	0-3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.3	.5	.0
	4-10	.3	.3	.1	.1	.3	.2	.0	.0	.0	.0	1.3	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.3	.3	.1	.1	.3	.3	.0	.0	.0	.3	2.4	.0
2<3	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.7	.1	.3	.1	.7	.0	.0	1.8	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.7	.1	.3	.1	.7	.0	.0	2.1	.0
5<10	0-3	.7	.1	.8	.7	.8	.3	.1	.0	.0	.3	3.7	.0
	4-10	.8	.9	1.1	1.9	5.4	.8	.1	.5	.0	.0	11.6	.0
	11-21	.0	.0	.5	3.6	1.0	.2	.6	.0	.0	.0	5.8	.0
	22+	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.5	.0
	TOT %	1.4	1.1	2.4	6.6	7.2	1.3	.9	.5	.0	.3	21.6	.0
10+	0-3	.5	1.8	1.6	1.1	1.7	.5	.5	.7	.0	4.7	13.2	.0
	4-10	1.4	2.2	6.1	11.1	7.0	3.8	3.2	2.2	.0	.0	37.1	.0
	11-21	.1	.4	.9	11.7	5.9	1.6	.8	1.2	.0	.0	22.6	.0
	22+	.0	.0	.0	.7	.1	.0	.0	.0	.0	.0	.8	.0
	TOT %	2.1	4.4	8.7	24.6	14.7	5.8	4.5	4.1	.0	4.7	73.7	.0
TOT OBS													
TOT PCT													
		3.8	6.0	11.3	32.2	22.6	7.6	5.5	5.8	.0	5.3	100.0	380

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	6.9	10.3	10.3	6.9	.0	.0	3.4	37.9	62.1	29
06009	.0	.0	.0	10.8	5.4	2.7	2.7	.0	.0	.0	21.6	78.4	37
12015	.0	.0	.0	10.3	10.3	.0	3.4	.0	.0	.0	24.1	75.9	29
18021	.0	.0	.0	10.0	10.0	5.0	5.0	.0	5.0	.0	35.0	65.0	20
TOT	.0	.0	.0	11	10	5	5	.0	1	1	73	82	115
PCT	.0	.0	.0	9.6	8.7	4.3	4.3	.0	.9	.9	28.7	71.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	5.5	1.4	24.7	68.5	73
06009	.0	.9	1.8	1.8	15.5	80.0	110
12015	.0	.0	1.3	2.5	17.7	79.5	79
18021	.0	.0	2.2	2.2	31.3	64.2	134
TOT	.0	1	10	8	91	286	396
PCT	.0	.3	2.5	2.0	23.0	72.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	7.1	32.1	60.7	28
06009	.0	.0	11.1	11.1	77.8	36
12015	.0	.0	14.3	10.7	75.0	28
18021	.0	.0	10.5	26.3	63.2	19
TOT	.0	.0	12	21	78	111
PCT	.0	.0	10.8	18.9	70.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.8	1.6	6.3	.8	.0	12	9.4
80/84	.0	.0	.0	.0	5.5	28.3	40.2	8.7	105	82.7
75/79	.0	.0	.0	.0	.0	1.8	4.7	1.6	10	7.9
TOTAL	.0	.0	.0	1	9	46	58	13	127	100.0
PCT	.0	.0	.0	.8	7.1	36.2	45.7	10.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	1.6	.4	1.2	1.8	2.6	1.2	.0	.0	.0	.8
80/84	5.1	3.3	17.1	25.8	17.7	5.1	4.1	2.8	.0	1.6
75/79	.0	.0	.0	.8	1.6	1.6	1.6	1.6	.0	.8
TOTAL	5.7	3.7	18.3	28.3	21.9	7.9	5.7	4.3	.0	3.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	86	85	84	81	76	73	73	80.8	164
06009	92	90	88	83	79	76	70	83.0	440
12015	87	85	84	82	78	76	74	81.5	216
18021	86	85	84	81	77	75	74	80.7	429
TOT	92	88	86	82	77	75	70	81.7	1249

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	20.7	55.2	24.1	85	29
06009	.0	2.6	15.4	48.2	33.3	2.6	77	39
12015	.0	.0	8.3	38.9	41.7	11.1	80	36
18021	.0	.0	2.6	36.8	57.9	2.6	82	38
TOT	.0	1	10	52	66	13	80	142

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.6	1	.0	.6
7/8	.0	.0	.6	.0	1	.0	.6
4	.0	.0	.6	.6	2	.0	1.3
3	.0	.0	.6	1.9	4	.0	2.5
2	.0	.0	3.8	1.9	9	.0	5.7
1	.0	.6	3.2	.6	7	.6	3.8
0	.0	1.3	19.0	.6	33	.6	20.3
-1	.0	4.4	11.4	1.3	27	.6	16.5
-2	.0	5.7	13.9	.0	31	.0	19.6
-3	.0	3.8	7.0	.0	17	.0	10.8
-4	.0	4.4	3.8	.0	13	.0	8.2
-5	.6	2.5	2.5	.6	10	.0	6.3
-6	.6	.0	.6	.0	2	.0	1.3
-9/-10	.6	.0	.0	.0	1	.0	.6
TOTAL	3	36	106	13	158	3	155
PCT	1.9	22.8	67.1	8.2	100.0	1.9	98.1

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N								NE							
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.7	.0	.0	.0	.0	1.7	1-2	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	3-4	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.7	.0	.0	.0	.0	1.7	TOT PCT	.0	.0	.0	.0	.0	.0	.0

E								SE							
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.7	3.4	.0	.0	.0	.0	5.1	<1	2.1	3.4	.0	.0	.0	.0	5.5
1-2	3.4	9.3	.0	.0	.0	.0	12.7	1-2	.0	10.2	5.1	.0	.0	.0	15.3
3-4	.0	3.4	3.4	.0	.0	.0	6.8	3-4	.0	3.4	3.8	.0	.0	.0	7.2
5-6	.0	.0	.0	.0	.0	.0	.0	5-6	.0	.0	5.9	.0	.0	.0	5.9
7	.0	.0	.0	.0	.0	.0	.0	7	.0	.0	3.4	1.7	.0	.0	5.1
8-9	.0	.0	.0	.0	.0	.0	.0	8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	5.1	16.1	3.4	.0	.0	.0	24.6	TOT PCT	2.1	16.9	18.2	1.7	.0	.0	39.0

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SFA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.3	.0	.0	.0	.0	.0	1.3	.0	2.1	.0	.0	.0	.0	2.1
1-2	.0	5.5	1.7	.0	.0	.0	7.2	.0	2.1	.0	.0	.0	.0	2.1
3-4	.0	.0	6.4	.0	.0	.0	6.4	.0	1.7	.0	.0	.0	.0	1.7
5-6	.0	.0	2.5	.0	.0	.0	2.5	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	3.4	.0	.0	.0	3.4	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	5.5	14.0	.0	.0	.0	20.8	.0	3.9	.0	.0	.0	.0	5.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.3	.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	3.4	.0	.0	.0	.0	3.4	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.7	.0	.0	.0	.0	4.7	.0	.0	.0	.0	.0	.0	.0	96.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	11.3	9.7	.0	.0	.0	.0	21.0	62
1-2	3.2	32.3	6.5	.0	.0	.0	41.9	
3-4	.0	8.1	14.9	.0	.0	.0	21.0	
5-6	.0	.0	8.1	.0	.0	.0	8.1	
7	.0	.0	8.1	.0	.0	.0	8.1	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	14.5	50.0	33.9	1.6	.0	.0	100.0	

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	9.6	30.9	12.8	2.1	2.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	54
6-7	.0	.0	6.4	4.3	7.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17
8-9	.0	2.1	3.2	2.1	3.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
12-13	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
INDRY	8.5	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9
TOTAL	17	31	21	9	12	3	0	1	0	0	0	0	0	0	0	0	0	0	0	94	3
PCT	18.1	33.0	22.3	9.6	12.8	3.2	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

NOVEMBER

PERIOD: (PRIMARY) 1877-1971  
(OVER-ALL) 1854-1971

AREA 0003 SUNDA STRAIT  
5.65 104.7E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OBS TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	16.7	7.1	.0	.0	.0	.0	76.2
NE	.0	20.0	.0	.0	.0	.0	.0	20.0	6.7	6.7	.0	.0	.0	.0	66.7
E	8.0	20.0	.0	.0	.0	.0	.0	28.0	16.0	.0	.0	.0	.0	.0	36.0
SE	3.6	.0	.0	.0	.0	.0	.0	3.6	.9	1.8	.0	.0	.0	.0	95.5
S	4.6	.0	.0	.0	.0	.0	.0	4.6	1.7	15.5	.0	.0	.0	.0	80.5
SW	7.4	.0	.0	.0	.0	.0	.0	7.4	.7	5.1	.0	.0	.0	.0	88.2
W	20.8	4.2	.0	.0	.0	.0	.0	25.0	15.6	8.3	.0	.0	.0	.0	39.4
NW	7.5	15.1	.0	.0	.0	.0	.0	72.6	7.5	22.6	.0	.0	.0	.0	56.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.1	.0	.0	.0	.0	88.9
TOT PCT	7.0	2.9	.0	.0	.0	.0	.0	9.9	5.2	9.3	.0	.0	.0	.0	78.5
TOT OBS:	172														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OBS TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00003	6.1	3.0	.0	.0	.0	.0	.0	9.1	9.1	3.0	.0	.0	.0	.0	78.8
06009	5.1	3.4	.0	.0	.0	.0	.0	8.5	3.4	.0	.0	.0	.0	.0	88.1
12019	9.1	2.5	.0	.0	.0	.0	.0	11.4	4.5	18.2	.0	.0	.0	.0	70.5
18021	4.5	2.5	.0	.0	.0	.0	.0	11.6	4.7	16.3	.0	.0	.0	.0	74.4
TOT PCT	.1	.1	.0	.0	.0	.0	.0	10.1	5.0	8.9	.0	.0	.0	.0	78.8
TOT OBS	172														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	1.0	2.7	.5	.0	.0	.0	4.2	6.6	3.1	10.0	3.6	8.3	5.7	.0	4.1	2.8		
NE	.0	2.0	.3	.0	.0	.0	2.7	6.9	3.1	.0	3.4	4.4	2.7	.0	2.2	1.1		
E	.9	4.2	1.7	.1	.0	.0	7.0	8.3	8.2	.0	7.8	4.0	5.3	3.3	9.4	5.6		
SE	1.2	11.4	8.4	.2	.0	.0	21.3	10.2	23.7	20.0	21.4	20.6	23.2	20.0	17.5	21.9		
S	2.3	10.5	9.1	.2	.0	.0	18.1	8.6	14.6	30.0	19.1	19.8	19.8	36.7	17.4	15.7		
SW	2.1	8.7	4.5	.2	.0	.0	15.5	8.6	14.2	10.0	16.1	11.9	14.8	8.3	16.6	18.3		
W	1.6	7.8	3.8	.4	.0	.0	13.6	9.3	11.1	10.0	15.2	15.9	11.0	21.7	13.4	14.0		
NW	1.3	6.7	3.2	.8	.0	.0	12.0	9.7	15.5	20.0	9.4	10.3	11.3	3.3	14.7	12.1		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	5.5						5.5	.0	6.4	.0	4.1	4.8	6.1	6.7	4.6	8.4		
TOT OBS	202	663	339	24	0	0	1228		84.5	187	5	320	126	179	15	218		
TOT PCT	16.4	54.0	27.6	2.0	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

W.D DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	2.6	1.5	.2	.0	.0		4.3	6.6	3.3	4.9	5.3	3.5		
NE	1.6	1.0	.1	.0	.0		2.7	6.9	3.0	3.7	2.4	1.7		
E	3.3	3.0	.7	.0	.0		7.0	8.3	7.9	6.7	5.2	7.7		
SE	5.9	12.2	3.2	.1	.0		21.3	10.2	24.6	21.2	22.9	19.5		
S	7.1	9.7	1.4	.0	.0		18.1	8.6	15.2	19.3	21.1	16.7		
SW	6.5	7.6	1.4	.0	.0		15.5	8.6	14.1	14.9	14.3	17.4		
W	4.9	7.1	1.4	.2	.0		13.6	9.3	11.1	13.4	11.9	13.7		
NW	4.6	5.5	1.9	.1	.0		12.0	9.7	13.6	9.6	10.7	13.5		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	5.5						5.5	.0	6.3	4.3	6.2	6.3		
TOT OBS	516	583	125	4	0	1228		8.3	192	446	194	396		
TOT PCT	42.0	47.5	10.2	.3	.0		100.0		100.0	100.0	100.0	100.0		

## NOVEMBER

PERIOD: (PRIMARY) 1877-1971  
(OVER-ALL) 1854-1971AREA 0003 SUNDIA STRAIT  
5.6S 104.7E

TABLE 4

## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	6.3	14.1	54.2	24.0	1.6	.0	.0	.0	8.0	100.0	192
06009	4.3	13.0	55.4	26.5	.9	.0	.0	.0	8.2	100.0	446
12015	6.2	7.2	51.0	34.0	1.5	.0	.0	.0	9.3	100.0	194
18021	6.3	8.8	53.8	27.5	3.5	.0	.0	.0	8.8	100.0	396
TOT	58	134	663	339	24	0	0	0	8.5		1228
PCT	5.5	10.9	54.0	27.6	2.0	.0	.0		100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	2.0	2.0		7.2
NE	.0	.0	.3	1.1		7.6
E	.0	1.1	.0	7.6		6.7
SE	.3	2.6	8.5	2.6		5.7
S	6.3	2.8	12.5	8.5		5.5
SW	4.8	4.8	8.5	2.8		4.5
W	.0	3.4	6.5	5.4		6.0
NW	.0	.0	2.6	4.5		7.2
VAR	.0	.0	.0	.0		.0
CALM	.0	1.1	.0	2.3	88	6.6
TOT OBS	10	14	36	28		5.7
TOT PCT	11.4	15.9	40.9	31.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM) >4/8  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NM <5/8 ANY HGT	TOTAL OBS
N	.0	.0	2.0	2.0		7.2	.0	.0	.0	1.1	.9	.0	.0	.0	.0	.0	.0	2.0
NE	.0	.0	.3	1.1		7.6	.0	.0	.0	.3	.9	.0	.0	.0	.0	.0	.0	.3
E	.0	1.1	.0	7.6		6.7	.0	.0	.0	.9	.6	.0	.0	.0	.0	.0	.0	2.3
SE	.3	2.6	8.5	2.6		5.7	.0	.0	.0	.0	3.7	.6	.0	.0	.0	.0	.0	9.7
S	6.3	2.8	12.5	8.5		5.5	.0	.0	.0	2.3	4.0	4.0	.0	.0	.0	.0	.0	19.9
SW	4.8	4.8	8.5	2.8		4.5	.0	.0	.0	1.4	.9	1.1	.0	.0	.0	.0	.0	17.6
W	.0	3.4	6.5	5.4		6.0	.0	.0	.0	.9	4.0	1.1	.0	.0	.0	.0	.0	9.4
NW	.0	.0	2.6	4.5		7.2	.0	.0	.0	1.1	1.1	.0	.0	.0	.0	.0	.0	4.8
VAR	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	1.1	.0	2.3	88	6.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT OBS	10	14	36	28		5.7	.0	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	2.3
TOT PCT	11.4	15.9	40.9	31.8	100.0		.0	.0	.0	8.0	17.0	6.8	.0	.0	.0	.0	.0	88
																		100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM) >4/8 AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>5000	>0
>6500	.0	.0	.0	.0	.0	.0	.0	.0
>5000	.0	.0	.0	.0	.0	.0	.0	.0
>3500	.0	.0	.0	.0	.0	.0	.0	.0
>2000	4.3	5.4	6.5	6.5	6.5	6.5	6.5	6.5
>1000	15.1	20.4	23.7	23.7	23.7	23.7	23.7	23.7
>600	18.3	26.9	32.3	32.3	32.3	32.3	32.3	32.3
>400	18.3	26.9	32.3	32.3	32.3	32.3	32.3	32.3
>150	18.3	26.9	32.3	32.3	32.3	32.3	32.3	32.3
>0	18.3	26.9	32.3	32.3	32.3	32.3	32.3	32.3
TOTAL	17	25	30	30	30	30	30	30

TOTAL NUMBER OF OBS: 93

PCT FREQ NM &lt;5/8: 67.7

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
3.1	15.3	21.4	15.3	13.3	7.1	4.1	4.1	16.3	98



PERIOD: (PRIMARY) 1877-1971  
(OVER-ALL) 1854-1971

NOVEMBER

AREA 0005 SUNDA STRAIT  
5.65 104.7E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.0	.0	.0	.0	.0	.6	1.2	.0	.0	.0	1.7	.0
	NO PCP	.0	.0	.0	.9	1.2	.3	.0	.0	.0	.0	2.3	.0
	TOT %	.0	.0	.0	.9	1.2	.9	1.2	.0	.0	.0	4.1	.0
5<10	PCP	.0	.4	1.0	.6	.3	.4	1.7	1.7	.0	.0	6.4	.0
	NO PCP	3.6	.7	.3	4.5	4.2	3.6	3.6	2.6	.0	1.7	25.0	.0
	TOT %	3.6	1.2	1.3	5.1	4.5	4.2	5.4	4.4	.0	1.7	31.4	.0
10+	PCP	.0	.0	.0	.0	.9	.3	.6	.0	.0	.0	.0	.0
	NO PCP	2.5	1.0	2.3	10.2	18.8	14.4	6.8	3.3	.0	3.5	64.3	.0
	TOT %	2.5	1.0	2.3	10.2	19.6	14.7	7.4	3.3	.0	3.5	64.3	.0
TOT OBS													172
TOT PCT		6.1	2.2	3.6	16.1	25.3	19.8	14.0	7.7	.0	9.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.0
1<2	0-3	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3	.6	.0
	4-10	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.3	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.1	.1	.0	.3	.0	.0	.0	.0	.3	.9	.0
2<5	0-3	.0	.0	.0	.0	.4	.1	.3	.3	.0	.0	1.1	.0
	4-10	.0	.0	.0	.9	.3	.4	1.0	.6	.0	.0	3.1	.0
	11-21	.0	.0	.0	.3	.3	.0	.1	.1	.0	.0	.9	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	1.1	1.0	.6	1.4	1.0	.0	.0	5.1	.0
5<10	0-3	.6	.1	.0	.1	1.0	.6	.3	.1	.0	.9	3.7	.0
	4-10	1.1	.4	.3	2.1	1.3	1.1	2.5	2.4	.0	.0	11.1	.0
	11-21	.4	.1	.4	1.6	.8	1.8	1.7	1.4	.0	.0	8.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	2.2	.6	.6	3.9	3.1	3.2	4.5	3.9	.0	.9	22.9	.0
10+	0-3	1.0	.6	.7	1.3	1.7	1.9	.3	.6	.0	9.7	13.7	.0
	4-10	2.4	.9	1.2	6.3	12.7	7.6	5.9	4.9	.0	.0	44.0	.0
	11-21	.0	.0	.6	3.4	3.1	3.5	1.6	.9	.0	.0	13.1	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	3.4	1.5	2.5	13.0	17.6	13.0	7.9	6.4	.0	9.7	70.9	.0
TOT OBS													350
TOT PCT		5.6	2.2	3.3	18.1	21.9	16.8	13.8	11.2	.0	7.1	100.0	

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PERIOD: (PRIMARY) 1877-1971  
(OVER-ALL) 1854-1971

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 209	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	4.0	16.0	4.0	.0	.0	.0	.0	24.0	76.0	25
06009	.0	.0	.0	.0	23.1	7.7	.0	.0	.0	.0	30.8	69.2	26
12015	.0	.0	.0	11.5	7.7	7.7	.0	.0	.0	.0	26.9	73.1	26
18021	.0	.0	.0	20.0	20.0	5.0	.0	.0	.0	.0	45.0	55.0	20
TOT	0	0	0	8	16	6	0	0	0	0	30	67	97
PCT	.0	.0	.0	8.2	16.5	6.2	.0	.0	.0	.0	30.9	69.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10~	TOTAL OBS
00003	.0	.0	1.6	3.2	20.6	74.6	63
06009	.0	.0	.0	3.8	21.7	74.5	106
12015	.0	.0	1.2	9.3	21.0	69.3	75
18021	.0	.9	.9	5.3	26.3	66.7	114
TOT	0	1	3	19	81	234	358
PCT	.0	.3	.8	5.3	22.6	70.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8), BY HOUR

HOUR (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	4.3	21.7	73.9	23
06009	.0	.0	3.8	26.9	69.2	26
12015	.0	.0	19.2	7.7	73.1	26
18021	.0	.0	22.2	27.8	50.0	18
TOT	0	0	11	19	63	93
PCT	.0	.0	11.8	20.4	67.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	4.8	3.6	1.9	.0	11	10.5
80/84	.0	.0	.0	.0	3.8	32.4	38.1	3.8	82	78.1
75/79	.0	.0	.0	.0	.0	.0	3.8	7.6	12	11.4
TOTAL	0	0	0	0	8	38	46	12	105	100.0
PCT	.0	.0	.0	.0	8.6	36.2	43.8	11.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	1.7	4.0	1.9	1.0	1.0	.0	1.0
80/84	3.6	.7	.5	10.7	22.4	18.8	10.2	6.4	.0	4.8
75/79	.7	1.0	1.2	.0	1.0	1.4	3.8	1.4	.0	1.0
TOTAL	4.3	1.7	1.7	12.4	27.4	22.1	15.0	8.8	.0	6.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	87	84	81	77	74	72	80.7	187
06009	92	91	78	83	78	74	72	82.8	445
12015	89	86	84	82	77	75	75	81.4	192
18021	89	85	83	81	77	74	72	80.5	387
TOT	92	89	86	82	77	74	72	81.5	1211

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	4.0	40.0	32.0	24.0	83	25
06009	.0	.0	17.1	34.3	40.0	8.6	78	35
12015	.0	.0	5.8	42.3	53.8	.0	80	26
18021	.0	.0	4.2	29.2	54.2	12.5	83	24
TOT	0	0	9	40	49	12	80	110

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT FOG	N FOG	NO FOG
5	.0	.0	.0	.5	.0	1	.0	.0
5	.0	.0	.0	.0	.0	1	.0	.0
4	.0	.0	.0	.5	.6	2	.0	1.3
3	.0	.0	.0	1.9	.0	5	.0	3.2
2	.0	.0	3.2	1.3	.0	7	.0	4.4
1	.0	.0	3.8	1.3	.0	8	.0	5.1
0	.0	2.5	18.4	1.3	.0	35	.0	22.2
-1	.0	2.5	10.1	1.9	.0	23	.0	14.6
-2	.0	5.1	10.8	.0	.0	25	.0	15.8
-3	.0	6.3	5.7	.0	.0	19	.0	12.0
-4	.0	6.3	5.1	.0	.0	18	.0	11.4
-5	.0	3.8	.0	.0	.0	8	.0	5.1
-6	.0	1.3	.0	.0	.0	3	.0	1.9
-7/-8	.0	1.9	.0	.0	.0	3	.0	1.9
TOTAL	2	47	93	14	2	158	0	158
PCT	1.3	29.7	58.9	9.9	1.3	100.0		100.0

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.2	.0	.0	.0	.0	2.2	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.7	.0	.0	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.9	.0	.0	.0	.0	3.9	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	2.2	.0	.0	.0	.0	.0	2.2
1-2	.0	.0	.0	.0	.0	.0	.0	.0	4.4	.0	.0	.0	.0	4.4
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3	.0	.0	.0	3.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	2.2	3.6	3.3	.0	.0	.0	11.1

PERIOD: (OVER-ALL) 1963-1971

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	2.2	1.7	.0	.0	.0	.0	3.9	.0	2.2	.0	.0	.0	.0	2.2
1-2	1.7	18.9	2.2	.0	.0	.0	22.8	.0	11.1	2.2	.0	.0	.0	13.9
3-4	.0	3.9	5.6	.0	.0	.0	9.4	.0	5.0	4.4	.0	.0	.0	9.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.4	.0	.0	.0	4.4
7	.0	.0	2.2	.0	.0	.0	2.2	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	3.9	24.4	10.0	.0	.0	.0	38.3	.6	18.3	11.1	.0	.0	.0	30.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2
1-2	.0	3.9	.0	.0	.0	.0	3.9	.0	4.4	.0	.0	.0	.0	.0	4.4
3-4	.0	6.1	.0	.0	.0	.0	6.1	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	9.4	.0	.0	.0	.0	9.4	2.2	4.4	.0	.0	.0	.0	.0	6.7 100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	6.5	6.5	.0	.0	.0	.0	13.0	13.0
1-2	4.3	43.5	4.3	.0	.0	.0	52.2	52.2
3-4	.0	15.2	13.0	.0	.0	.0	28.3	28.3
5-6	.0	.0	4.3	.0	.0	.0	4.3	4.3
7	.0	.0	2.2	.0	.0	.0	2.2	2.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	10.9	65.2	23.9	.0	.0	.0	100.0	46

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	8.2	26.0	20.5	5.5	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	45	2
6-7	.0	5.5	5.5	1.4	2.7	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12	4
8-9	.0	.0	2.7	5.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	4
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	3
12-13	.0	.0	1.4	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	4
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	3
INDEX	4.1	.0	1.4	.0	2.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	3
TOTAL	9	23	25	10	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	73	3
PCT	12.3	31.5	34.2	13.7	6.8	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	7.5	7.5	.0	.0	.0	.0	.0	15.1	.0	5.7	7.5	.0	.0	.0	71.7
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	30.8	.0	.0	.0	.0	69.2
E	.0	.0	14.3	.0	.0	.0	.0	14.3	.0	.0	.0	.0	.0	.0	85.7
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	16.0	.0	.0	.0	.0	84.0
S	5.4	2.7	2.7	.0	.0	.0	.0	10.8	.0	10.8	5.4	.0	.0	.0	73.0
SW	13.0	5.2	1.3	.0	.0	.0	.0	19.5	.6	13.0	.0	.0	.0	.0	72.1
W	10.4	5.0	.0	.0	.0	.0	.0	13.4	9.0	4.5	.0	.0	.0	.0	73.1
NW	2.6	7.0	.0	.0	.0	.0	.0	9.6	.9	7.0	.0	.0	.0	.0	82.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	16.7	.0	.0	.0	.0	.0	.0	16.7	.0	.0	.0	.0	.0	.0	83.3
TOT PCT	7.7	4.4	1.1	.0	.0	.0	.0	13.3	2.8	8.8	1.1	.0	.0	.0	75.7
TOT OBS:	181														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
0000	10.8	2.7	.0	.0	.0	.0	.0	13.5	5.4	5.4	.0	.0	.0	.0	78.4
0600	6.3	2.1	.0	.0	.0	.0	.0	8.3	2.1	2.1	.0	.0	.0	.0	89.6
1200	3.9	7.8	.0	.0	.0	.0	.0	11.8	.0	11.8	.0	.0	.0	.0	76.3
1800	10.0	8.0	4.0	.0	.0	.0	.0	22.0	4.0	14.0	4.0	.0	.0	.0	58.0
TOT PCT TCT OBS	7.5 186	5.4	1.1	.0	.0	.0	.0	14.0	2.7	8.6	1.1	.0	.0	.0	75.3

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)					
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21
N	1.2	3.7	1.1	.0	.0	.0	6.1	7.0	4.9	.0	6.8	7.4	5.0	.0	6.2	6.7	
NE	.7	1.8	.5	.1	.0	.0	3.0	6.9	2.8	.0	4.8	1.6	2.7	.0	2.7	2.5	
E	.5	2.9	.2	.0	.0	.0	3.6	6.6	3.1	.0	5.0	3.2	2.3	20.0	2.8	4.5	
SE	2.2	5.7	2.4	.2	.0	.0	10.5	7.7	12.2	14.3	8.3	11.6	11.9	.0	11.0	9.5	
S	1.4	5.5	1.4	.1	.0	.0	8.3	6.9	8.8	28.6	6.3	5.5	11.3	.0	9.5	8.2	
SW	2.2	9.0	3.5	.2	.0	.0	14.8	8.1	14.7	.0	14.3	16.1	17.4	30.0	15.8	10.8	
W	2.5	13.9	6.1	1.0	.2	.0	23.8	9.5	25.3	97.1	21.8	24.5	22.7	40.0	23.9	24.3	
NW	2.8	11.0	8.9	1.9	.2	.0	24.7	10.9	23.9	.0	24.2	46.8	22.6	10.0	24.6	28.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	5.0						5.0	.0	4.5	.0	8.3	3.2	4.1	.0	3.5	5.0	
TOT OBS	232	669	301	44	5	0	1251	8.4	179	7	300	155	195	5	231	179	
TOT PCT	18.5	53.5	24.1	3.5	.4	.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+						00	03	09	15	21
N	3.5	2.4	.2	.0	.0			6.1	7.0	4.7	7.0	4.9	6.4		
NE	2.0	.8	.2	.0	.0			3.0	6.9	2.7	3.7	2.6	2.6		
E	2.1	1.5	.1	.0	.0			3.6	8.6	3.0	4.4	2.8	3.5		
SE	5.7	3.9	.9	.0	.0			10.5	7.7	12.2	9.5	11.6	10.4		
S	5.2	2.7	.4	.0	.0			8.3	6.9	9.5	6.0	11.0	9.0		
SW	6.8	7.0	1.0	.0	.0			14.8	8.1	14.1	14.9	17.8	13.6		
W	8.8	12.3	2.4	.3	.1			23.8	9.5	26.5	22.7	23.1	24.1		
NW	7.9	11.3	5.1	.4	.0			24.7	10.9	23.0	25.2	22.3	26.3		
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0		
CALM	5.0							5.0	.0	4.3	6.6	4.0	4.1		
TOT OBS	587	524	129	10	1			1251	8.4	186	435	200	410		
TOT PCT	46.9	41.9	10.3	.8	.1			100.0		100.0	100.0	100.0	100.0		

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOURLY	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
0000	4.3	14.5	30.0	28.0	3.2	.0	.0	8.5	100.0	184
0300	6.6	14.7	31.9	23.3	2.9	.7	.0	8.2	100.0	455
1200	4.0	16.5	35.5	20.5	3.5	.0	.0	7.7	100.0	200
1800	4.1	10.2	35.9	24.9	4.4	.5	.0	9.0	100.0	410
TOT	6.3	16.9	36.7	30.1	4.4	.5	.0	8.4		1251
PCT	5.0	13.5	33.5	24.1	3.5	.4	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	2.2	1.9		5.9
NE	1.1	1.1	2.2	.3		4.4
E	.0	1.1	1.1	1.1		6.0
SE	2.2	3.6	4.7	1.1		4.3
S	2.2	2.8	6.1	1.7		4.9
SW	.0	1.4	8.6	7.2		6.7
W	1.1	1.1	15.0	8.9		6.7
NW	.0	2.2	6.7	5.6		6.5
VAR	.0	.0	.0	.0		.0
CALM	.0	1.1	2.2	2.2	90	6.0
TOT OBS	6	13	44	27		6.0
TOT PCT	6.7	14.4	48.9	30.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 249	300 399	600 699	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.8	2.2	.0	.0	.0	.0	.0	1.1	
NE	.0	.0	.0	.3	1.1	.0	.0	.0	.0	.0	3.3	
E	.0	.0	.0	1.1	1.1	.0	.0	.0	.0	.0	1.1	
SE	.0	.0	.0	1.1	2.2	.0	.0	.0	.0	.0	8.3	
S	.0	.0	.0	1.1	1.1	.8	.0	.0	.0	.0	9.7	
SW	.0	.0	.0	2.2	3.6	1.4	1.1	.0	.0	.0	8.9	
W	.0	.0	.0	4.2	6.1	.8	1.7	.0	.0	.0	13.3	
NW	.0	.0	2.2	.3	.3	2.5	.6	.0	.0	.0	8.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.6	90
TOT OBS	0	2	10	16	5	3	0	0	0	0	54	
TOT PCT	.0	.0	2.2	11.1	17.8	5.6	3.3	.0	.0	.0	60.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (M)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NH) = OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.0	.0	.0	.0	.0	.0	.0	.0
= OR >5000	.0	.0	.0	.0	.0	.0	.0	.0
= OR >3500	1.1	3.3	3.3	3.3	3.3	3.3	3.3	3.3
= OR >2000	3.3	8.9	8.9	8.9	8.9	8.9	8.9	8.9
= OR >1000	17.8	26.7	26.7	26.7	26.7	26.7	26.7	26.7
= OR >600	27.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8
= OR >300	30.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
= OR >150	30.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
= OR >0	30.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
TOTAL	27	36	36	36	36	36	36	36

TOTAL NUMBER OF OBS: 90

PCT FREQ NH <5/8: 60.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	TOTAL OBS
	1.9	7.7	22.1	17.3	11.5	8.7	14.4	6.7	9.6	104

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	
	TOT %	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5<10	PCP	.6	.0	.0	.0	1.1	1.9	3.7	1.0	.0	.0	8.3	
	NO PCP	2.6	.7	.0	1.1	1.9	4.7	9.9	7.2	.0	.0	28.2	
	TOT %	3.2	.7	.0	1.1	3.0	6.6	13.7	8.1	.0	.0	36.5	
10+	PCP	.6	.0	.6	.0	.0	2.2	.6	.6	.0	.6	5.0	
	NO PCP	3.0	2.9	3.3	5.8	7.2	12.4	13.5	7.0	.0	2.8	58.0	
	TOT %	3.6	2.9	3.9	5.8	7.2	14.6	14.1	7.6	.0	3.3	63.0	
TOT OBS													181
TOT PCT		7.3	3.6	3.9	6.9	10.2	21.3	27.8	15.7	.0	3.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.3	.0	.0	.0	.0	.0	.3	.3	.0	.0	.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.3	.0	.0	.0	.0	.0	.3	.3	.0	.0	.5	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.3	.0	.0	.1	.1	.0	.0	.0	.0	.0	.5	
	11-21	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.3	.0	.0	.1	.1	.0	.3	.0	.0	.0	.8	
2<5	0-3	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3	
	4-10	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5	
	11-21	.0	.0	.0	.0	.0	.0	.4	.9	.0	.0	1.3	
	22+	.0	.0	.0	.0	.0	.1	.3	.1	.0	.0	.5	
	TOT %	.0	.0	.0	.0	.0	.1	.9	1.5	.0	.0	2.5	
5<10	0-3	.3	.0	.0	.3	.1	1.1	.6	.4	.0	.0	2.8	
	4-10	1.2	.6	.3	1.0	1.5	1.9	5.4	4.4	.0	.0	16.2	
	11-21	.3	.0	.0	.0	.3	.9	1.8	2.7	.0	.0	5.8	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	1.7	.6	.3	1.3	1.9	3.9	7.8	7.4	.0	.0	24.9	
10+	0-3	.9	.6	.3	.4	1.1	1.3	1.5	1.3	.0	4.8	12.2	
	4-10	2.0	1.2	3.2	3.5	4.7	10.0	10.9	6.7	.0	.0	42.1	
	11-21	.9	.4	.0	1.3	.9	3.7	5.4	4.1	.0	.0	16.8	
	22+	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3	
	TOT %	3.7	2.3	3.4	5.2	6.7	15.0	17.8	12.4	.0	4.8	71.3	
TOT OBS													394
TOT PCT		6.0	2.9	3.7	6.6	8.8	19.0	26.7	21.6	.0	4.8	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 209	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	4.3	13.0	13.0	8.7	.0	.0	.0	.0	39.1	60.9	23
06009	.0	.0	3.7	7.4	14.8	.0	3.7	.0	.0	.0	29.6	70.4	27
12015	.0	.0	.0	7.4	18.5	7.4	.0	.0	.0	.0	33.3	66.7	27
18021	.0	.0	.0	13.6	18.2	4.5	9.1	.0	.0	.0	45.5	54.5	22
TOT	0	0	2	10	16	5	3	0	0	0	36	63	99
PCT	.0	.0	2.0	10.1	16.2	5.1	3.0	.0	.0	.0	36.4	63.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	1.4	30.0	68.6	70
06009	.0	.0	.8	2.5	16.4	80.3	122
12015	.0	.0	1.2	2.4	27.1	69.4	85
18021	.0	1.6	.8	3.3	31.1	63.1	122
TOT	0	2	3	10	102	282	399
PCT	.0	.5	.8	2.5	25.6	70.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	4.8	19.0	23.8	57.1	21
06009	.0	4.5	13.0	22.7	63.0	22
12015	.0	.0	7.7	26.9	65.4	26
18021	.0	.0	14.3	33.3	52.4	21
TOT	0	2	12	24	54	90
PCT	.0	2.2	13.3	26.7	60.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.8	6.4	.0	.0	9	7.2
80/84	.0	.0	.0	.0	3.2	28.0	43.2	7.2	102	81.6
75/79	.0	.0	.0	.0	.0	.8	4.8	5.6	14	11.2
TOTAL	0	0	0	0	5	44	60	16	125	100.0
PCT	.0	.0	.0	.0	4.0	35.2	48.0	12.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
1.6	.0	.8	.8	.0	.8	1.4	1.8	.0	.0	
6.8	3.4	1.6	6.8	11.6	17.0	17.2	14.0	.0	3.2	
.8	.8	.8	.0	1.0	3.2	3.2	.6	.0	.8	
9.2	4.2	3.2	7.6	12.6	21.0	21.8	16.4	.0	4.0	

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	86	83	81	77	75	75	80.6	182
06009	94	90	87	82	79	75	73	82.7	437
12015	90	87	85	82	78	77	71	81.5	200
18021	87	85	83	80	76	75	72	80.2	412
TOT	94	89	86	81	77	75	71	81.4	1231

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	28.0	52.0	20.0	83	25
06009	.0	.0	14.3	43.7	37.1	2.9	77	35
12015	.0	.0	.0	35.3	52.9	11.8	82	34
18021	.0	.0	.0	27.8	55.6	16.7	83	36
TOT	0	0	5	45	64	16	81	130



DECEMBER

PERIOD: (PRIMARY) 1979-1971  
(OVER-ALL) 1954-1971

TABLE 17

AREA 0003 SUNDA STRAIT  
5.0S 104.7E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	WD FOG
11/13	.0	.0	.6	.0	.0	1	.0	.6
7/8	.0	.0	.6	.0	.6	2	.0	1.3
4	.0	.0	1.9	.0	.0	3	.0	1.9
3	.0	.0	.0	.6	.6	2	.0	1.3
2	.0	.0	3.2	.0	.0	10	.0	6.4
1	.0	.0	4.5	.6	.0	4	.0	5.1
0	.0	1.9	15.3	.0	.0	27	.6	16.6
-1	.0	1.3	16.0	1.9	.0	31	.0	19.7
-2	.0	3.2	14.0	.6	.0	26	.6	17.2
-3	.0	8.3	3.2	.0	.0	18	.0	11.5
-4	.0	3.8	1.3	.0	.0	5	.0	5.1
-5	.6	3.2	1.3	.0	.0	8	.0	5.1
-6	.6	.5	.0	.0	.0	5	.0	5.1
-7/-8	.0	.6	.6	.0	.0	2	.0	1.3
-9/-10	.6	.0	.0	.0	.0	1	.0	.6
TOTAL	3		99		2		2	155
		42		11		157		
PCT	1.9	26.8	63.1	7.0	1.3	100.0	1.3	98.7

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	1.7	.0	.0	.0	.0	.0	1.7
1-2	1.7	1.7	1.7	.0	.0	.0	5.2	.0	1.7	.0	.0	.0	.0	1.7
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.7	1.7	1.7	.0	.0	.0	5.2	1.7	1.7	.0	.0	.0	.0	3.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.7	.0	.0	.0	.0	1.7	.0	1.7	.0	.0	.0	.0	1.7
1-2	.0	1.7	.0	.0	.0	.0	1.7	.0	8.6	3.9	.0	.0	.0	12.5
3-4	.0	1.7	.0	.0	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.2	.0	.0	.0	.0	5.2	.0	10.3	3.9	.0	.0	.0	14.2

PERIOD: (OVER-ALL) 1963-1971

DECEMBER

TABLE 16 (CONT)

AREA 0003 SUNDA STRAIT  
5.05 104.7E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	1.7	1.7	.0	.0	.0	.0		3.4	.0	.0	.0	.0	.0	.0		.0
1-2	1.7	6.0	1.3	.0	.0	.0		9.1	.0	13.4	.0	.0	.0	.0		13.4
3-4	.0	.0	.0	.0	.0	.0		.0	.0	1.7	1.7	.0	.0	.0		3.4
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.0	3.4	.0	.0	.0		3.4
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	3.4	7.8	1.3	.0	.0	.0		12.5	.0	15.1	5.2	.0	.0	.0		20.3

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	1.7	.0	.0	.0	.0		1.7	.0	.0	.0	.0	.0	.0		.0	
1-2	1.3	7.3	1.3	.0	.0	.0		9.9	3.9	2.6	2.2	.0	.0	.0		8.6	
3-4	.0	4.7	5.2	.0	.0	.0		9.9	.0	.4	.0	.0	.0	.0		.4	
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	1.3	.0	.0	.0	.0		1.3	.0	.4	.0	.0	.0	.0		.4	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	1.3	15.1	6.5	.0	.0	.0		22.8	5.6	3.4	2.2	.0	.0	.0		11.2	94.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	10.3	6.9	.0	.0	.0	.0	17.2	
1-2	8.6	43.1	10.3	.0	.0	.0	62.1	
3-4	.0	8.6	6.9	.0	.0	.0	15.5	
5-6	.0	.0	3.4	.0	.0	.0	3.4	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	1.7	.0	.0	.0	.0	1.7	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	19.0	60.3	20.7	.0	.0	.0	100.0	58

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	6.0	30.1	16.9	2.4	2.4	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	49
6-7	.0	2.4	7.2	4.8	1.2	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3
8-9	.0	1.2	4.8	.0	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14
10-11	.0	3.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4
12-13	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2
INDET	3.6	4.8	3.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10
TOTAL	8	35	28	6	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83
PCT	9.6	42.2	33.7	7.2	4.8	2.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1877-1973  
(OVER-ALL) 1854-1973

ANNUAL

AREA 0003 SUNDA STRAIT  
5.65 104.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	PRZG PCPN	SNOW	OTHER PRZM PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FDG WD PCPN	FUG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	4.3	2.8	2.0	.0	.0	.0	.0	8.8	3.5	4.8	1.8	.0	3.6	.0	78.7
NE	1.4	3.7	.0	.0	.0	.0	.0	5.1	3.2	7.8	.8	.0	1.7	.0	81.6
E	1.4	2.9	2.3	.0	.0	.0	.0	6.6	2.1	5.6	.5	.0	.7	.0	85.0
SE	3.8	.6	1.3	.0	.0	.0	.0	5.7	2.6	9.0	.5	.0	.9	.0	82.5
S	4.7	2.0	.2	.0	.0	.0	.0	7.0	1.9	3.1	1.5	.0	1.2	.0	83.6
SW	6.5	3.6	1.2	.0	.0	.0	.0	10.8	2.0	5.5	.5	.0	1.4	.0	80.4
W	8.3	6.4	2.7	.0	.0	.0	.0	17.3	10.7	5.0	.2	.0	.7	.0	67.5
NW	8.9	4.5	1.0	.0	.0	.0	.0	13.9	4.5	4.3	2.1	.0	.0	.0	74.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.8	2.2	1.7	.0	.0	.0	.0	6.7	2.1	6.5	.0	.0	2.9	.0	82.3
TOT PCT	5.0	3.1	.8	.0	.0	.0	.0	8.8	2.9	6.3	.8	.0	1.2	.0	81.0
TOT OBS:	2205														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	PRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FDG WD PCPN	FDG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
0000	6.5	3.5	1.6	.0	.0	.0	.0	11.4	4.3	2.6	.6	.0	1.0	.0	80.5
0600	2.8	2.1	.0	.0	.0	.0	.0	5.5	1.7	.2	.3	.0	.9	.0	91.6
1200	3.6	2.4	.3	.0	.0	.0	.0	6.3	2.2	9.3	1.1	.0	1.5	.0	80.4
1800	8.1	4.9	.8	.0	.0	.0	.0	13.7	3.0	12.9	1.7	.0	1.3	.0	69.9
TOT PCT TOT OBS:	5.2 2330	3.2	.9	.0	.0	.0	.0	9.2	2.8	6.3	.9	.0	1.2	.0	80.6

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	1.2	3.3	.8	.1	*	.0	5.4	6.6	5.1	4.9	5.4	7.2	5.5	7.0	5.2	4.4	
NE	1.1	3.9	.8	*	.0	.0	5.9	6.8	4.7	9.5	7.3	7.5	6.9	6.6	4.2	4.0	
E	1.7	6.5	2.3	.3	*	.0	10.8	7.6	12.4	14.1	12.7	9.2	9.9	9.3	9.2	10.2	
SE	2.2	12.0	9.1	1.3	*	.0	24.6	9.2	28.0	21.7	22.9	22.7	24.5	23.8	24.3	25.9	
S	1.7	6.6	3.2	.3	.0	.0	11.7	8.0	11.0	10.6	9.2	11.9	13.4	15.2	13.6	12.4	
SW	1.6	5.9	2.0	.1	.0	.0	9.7	7.6	8.3	8.4	9.1	9.2	10.8	9.1	10.7	10.0	
W	1.4	7.0	3.1	.6	*	.0	12.1	8.7	11.0	20.5	12.1	13.6	11.9	12.8	12.2	12.1	
NW	1.4	6.8	4.0	.9	.1	*	13.2	9.1	14.7	9.2	13.9	13.4	10.3	11.2	12.8	14.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	4.6						5.6	.0	4.8	1.0	7.4	5.3	6.8	5.1	7.7	6.8	
TOT OBS							15195		2184	89	3741	1782	2277	101	2728	2293	
TOT PCT	19.1	32.0	25.2	3.3	.1	*		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	3.2	1.9	.2	*	*		5.4	6.6	5.0	6.0	5.5	4.9	
NE	3.4	2.3	.2	.0	.0		5.9	6.8	4.9	7.4	6.9	6.1	
E	5.1	4.8	.9	*	.0		10.8	7.6	12.5	11.5	9.8	9.7	
SE	7.6	12.5	4.3	.2	*		24.6	9.2	27.8	22.8	24.5	25.1	
S	5.1	5.4	1.2	*	.0		11.7	8.0	11.0	10.1	13.5	13.0	
SW	4.8	4.2	.6	*	.0		9.7	7.6	8.3	9.1	10.8	10.4	
W	4.8	5.9	1.3	.1	*		12.1	8.7	11.3	12.5	12.1	12.2	
NW	4.8	6.1	2.0	.2	*		13.2	9.1	14.5	13.7	10.3	13.4	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	6.6						6.6	.0	4.6	6.7	6.7	7.3	
TOT OBS						15195		8.4	2273	3523	2378	5021	
TOT PCT	45.4	43.1	10.7	.6	.1		100.0		100.0	100.0	100.0	100.0	

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TABLE 4

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## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	4.6	13.0	51.7	26.7	3.7	.2				
06009	6.7	14.0	51.7	24.3	3.1	.1	0.0	8.7	100.0	2273
12015	6.7	12.3	51.6	26.0	3.4	.0	0.0	8.2	100.0	5523
18021	7.3	10.5	52.8	25.2	3.9	.2	0.0	8.5	100.0	2378
TOT								8.6	100.0	5021
PCT	6.6	12.5	52.0	25.2	3.5	.1	*	8.4	100.0	15195

TABLE 5

## PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL CLOUD COVER	MEAN CLOUD COVER
N	.5	.8	2.2	1.3	4.8	
NE	1.5	1.3	1.9	1.0	4.7	
E	3.1	3.9	4.1	1.7	4.8	
SE	5.7	6.5	8.6	2.8	4.6	
S	3.3	2.6	5.6	1.6	4.5	
SW	2.2	2.2	5.3	2.5	5.2	
W	.8	1.4	6.0	4.0	6.3	
NW	.2	1.2	4.4	4.4	6.4	
VAR	.0	.0	.0	.0	.0	
CALM	1.1	1.2	2.1	1.2	4.7	
TOT OBS					1105	
TOT PCT	18.4	21.1	40.1	20.4	100.0	5.0

TABLE 6

## PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.4	1.0	.3	.2	.1	.0	.0	2.8	
.0	.0	.0	.2	.8	.4	.2	.0	.0	.0	4.2	
.1	.0	.1	.7	.8	.9	.2	.0	.0	.0	10.1	
.0	.0	.0	1.4	2.2	.9	.3	.0	.0	.2	18.3	
.0	.1	.1	.7	1.0	.0	.2	.0	.1	.1	10.2	
.0	.0	.2	.7	1.6	.8	.3	.0	.0	.0	8.4	
.1	.0	.3	1.2	2.3	1.5	.5	.0	.0	.0	6.4	
.0	.0	.3	1.0	1.8	.9	.4	.0	.0	.0	5.7	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.1	.2	.8	.3	.0	.0	.0	.0	4.2	
.1	.1	1.0	6.5	12.2	6.5	2.1	.1	.3	.4	70.3	1105
											100.0

TABLE 7

## CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)			OR				
	>10	>5	>2	>1	>1/2	>1/4	>0.001	>0
>6500	.6	.7	.7	.7	.7	.7	.7	.7
>5000	.6	.8	.8	.8	.8	.8	.8	.8
>3500	2.2	2.9	3.1	3.1	3.1	3.1	3.1	3.1
>2000	6.8	8.8	9.7	9.8	9.8	9.8	9.8	9.8
>1000	15.6	20.3	21.8	21.9	22.0	22.0	22.0	22.0
>600	20.5	26.5	28.5	28.5	28.6	28.6	28.7	28.7
>300	21.2	27.5	29.5	29.5	29.6	29.6	29.7	29.7
>150	21.2	27.5	29.5	29.6	29.7	29.7	29.8	29.8
>0	21.2	27.5	29.5	29.6	29.7	29.7	29.9	29.9

TOTAL NUMBER OF OBS: 1146

PCT FREQ NH <5/8: 70.1

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
5.1	14.4	22.4	16.4	11.4	7.3	8.0	3.1	9.8	.1	1242

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	*	*	.1	.1	.1	.0	.0	*	.3	
	NO PCP	*	.0	*	.0	.0	.0	.0	*	.0	.0	.1	
	TOT %	*	.0	.1	*	.1	.1	.1	*	.0	*	.4	
1/2<1	PCP	*	.0	*	*	*	.0	.0	.0	.0	.0	.1	
	NO PCP	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	
	TOT %	.1	.0	*	*	*	.0	.0	.0	.0	.0	.2	
1<2	PCP	.0	.0	.0	.1	.1	*	*	.1	.0	.0	.4	
	NO PCP	.1	.2	*	.1	.1	.1	.1	.1	.0	.1	.8	
	TOT %	.1	.2	*	.2	.2	.1	.1	.2	.0	.1	1.2	
2<5	PCP	.1	*	.0	.1	.1	.1	.3	.3	.0	.0	1.0	
	NO PCP	.1	.1	.2	.4	.2	.2	.1	.1	.0	*	1.4	
	TOT %	.1	.1	.2	.5	.3	.4	.4	.3	.0	*	2.3	
5<10	PCP	.4	.2	.3	.5	.4	.9	1.5	.8	.0	.2	5.2	
	NO PCP	2.2	2.7	2.9	3.5	2.9	2.9	3.7	2.6	.0	.6	23.4	
	TOT %	2.6	2.9	3.2	4.1	3.3	3.8	4.5	3.4	.0	.8	28.6	
10+	PCP	.2	.1	.2	.1	.2	.4	.3	.3	.0	.1	1.8	
	NO PCP	3.4	4.3	8.4	15.8	8.4	8.0	7.5	6.1	.0	3.4	65.4	
	TOT %	3.6	4.4	8.6	15.9	8.6	8.4	7.8	6.4	.0	3.5	67.3	
TOT OBS													2203
TOT PCT		6.5	7.6	12.2	20.7	12.4	12.8	12.9	10.4	.0	4.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	*	*	.0	.0	.0	.0	.0	.0	.0	*	*	
	4-10	.0	.0	*	*	.1	*	*	.0	.0	.0	.2	
	11-21	*	.0	*	*	.0	.0	*	*	.0		.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	*	*	*	.1	.1	*	.1	*	.0	*	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	
	4-10	*	.0	*	*	*	*	*	.0	.0	.0	.1	
	11-21	*	.0	.0	.0	.0	.0	.0	*	.0		*	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	*	.0	*	*	*	*	*	*	.0	*	.2	
1<2	0-3	.0	*	.0	.0	*	*	.0	*	.0	.1	.2	
	4-10	.1	.1	.1	.1	.1	.1	.1	.1	.0	.0	.7	
	11-21	.0	*	*	*	.0	.0	*	.1	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	*	.0	*	.0	*	.0	
	TOT %	.1	.1	.1	.2	.1	.1	.1	.2	.0	.1	1.1	
2<5	0-3	*	*	*	*	.1	*	.1	*	.0	.1	.4	
	4-10	.1	*	.1	.3	.1	.2	.3	.2	.0	.0	1.3	
	11-21	*	*	.0	.1	.1	*	.2	.2	.0		.7	
	22+	.0	.0	.0	*	.0	*	.1	.1	.0	.0	.2	
	TOT %	.1	.1	.1	.5	.2	.3	.6	.6	.0	.1	2.6	
5<10	0-3	.3	.2	.3	.1	.3	.3	.4	.2	.0	.5	2.6	
	4-10	1.0	1.2	1.1	1.7	1.6	1.4	1.6	1.7	.0		11.2	
	11-21	.3	.2	.5	1.3	.5	.7	.9	1.0	.0		5.3	
	22+	.0	.0	*	.1	*	*	*	.1	.0		.3	
	TOT %	1.5	1.6	1.9	3.2	2.5	2.4	3.0	2.9	.0	.5	19.4	
10+	0-3	.8	1.0	1.0	1.5	1.3	1.3	1.1	1.0	.0	5.2	14.0	
	4-10	2.5	2.7	5.7	10.5	6.4	5.2	5.8	5.7	.0		44.5	
	11-21	.3	.4	1.3	6.9	2.4	1.6	1.9	2.2	.0		17.0	
	22+	*	*	.1	.4	*	.1	.1	.1	.0		.9	
	TOT %	3.6	4.2	8.1	19.4	10.1	8.2	8.8	9.0	.0	5.2	76.4	
TOT OBS													4652
TOT PCT		5.4	5.9	10.3	23.4	13.0	11.0	12.5	12.7	.0	5.8	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET-NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.4	.0	1.2	6.9	14.0	7.2	4.4	.0	.0	.3	34.4	65.6	345
06009	.0	.0	1.5	4.0	12.9	4.5	.5	.0	.0	.0	23.4	76.6	301
12015	.0	.0	.3	5.7	7.8	6.7	2.2	.0	.0	.4	23.0	77.0	302
18021	.0	.3	.7	9.4	10.4	7.9	1.6	.4	1.3	.9	32.9	67.1	264
TOT PCT	.1	.1	.9	6.3	11.5	6.5	2.2	.1	.3	.4	28.5	71.5	1212 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.5	.1	1.4	2.6	20.9	74.6	922
06009	.2	.2	.4	2.1	16.2	80.9	1348
12015	.5	.1	1.2	3.4	19.3	75.5	952
18021	.3	.3	1.7	2.5	23.8	71.9	1957
TOT PCT	.3	.2	1.1	2.6	20.1	75.7	4779 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET-NM >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.4	1.9	11.7	24.4	63.9	328
06009	.0	1.6	6.6	18.4	75.0	287
12015	.0	.7	9.7	15.6	74.8	287
18021	.0	1.1	12.6	22.6	64.8	244
TOT PCT	.1	1.4	10.1	20.3	69.6	1146 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	.0	.1	.0	.0	.0	.1	
90/94	.0	.0	.0	.0	.3	.1	.0	.0	.4	
85/86	.0	.0	.0	.1	2.3	4.5	1.4	.2	8.3	
80/84	.0	.0	.0	.2	3.4	28.9	38.1	5.9	76.6	
75/79	.0	.0	.0	.0	.1	1.0	7.9	5.4	14.4	
70/74	.0	.0	.0	.0	.0	.0	.1	.0	.1	
TOT PCT	.0	.0	.0	.3	6.2	34.5	47.4	11.6	1463	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALN
95/99	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
90/94	.1	.0	.1	.0	.0	.1	.1	.0	.0	.0
85/86	.6	.8	1.3	1.7	1.0	1.1	.8	.7	.0	.6
80/84	9.1	6.8	9.9	15.8	10.1	9.7	8.4	7.0	.0	3.7
75/79	.9	.5	1.3	3.0	1.6	1.8	2.7	2.0	.0	.5
70/74	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT	6.8	8.1	12.6	20.5	12.8	12.7	12.0	9.6	.0	4.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	97	86	84	81	77	75	70	81.0	2227
06009	96	91	88	83	79	76	70	83.2	5363
12015	92	86	85	82	79	77	71	81.9	2347
18021	91	85	84	81	77	73	72	80.8	4946
TOT	97	89	86	82	78	76	70	81.9	14883

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	2.4	28.0	53.6	16.0	83	370
06009	.0	.5	18.5	44.6	31.6	4.9	77	386
12015	.0	.7	2.5	39.2	47.8	9.8	81	368
18021	.0	.0	1.2	26.4	56.6	15.8	83	435
TOT	0	5	93	534	744	183	81	1559

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TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 75	77 80	81 84	85 88	89 92	>92	TOT	N FOG	W FOG
11/13	.0	.0	.1	.1	.0	.1	3	.0	.2
7/8	.0	.0	.2	.1	.2	.0	10	.0	.5
6	.0	.0	.0	.1	.3	.0	10	.0	.5
5	.0	.0	.2	.1	.3	.0	12	.0	.6
4	.0	.0	.5	.7	.3	.0	25	.0	1.5
3	.0	.1	.5	.8	.2	.0	30	.0	1.6
2	.0	.1	3.5	1.9	.1	.0	105	.0	5.4
1	.0	.3	4.3	1.3	.0	.0	114	.1	5.7
0	.1	1.5	16.1	1.9	.0	.0	373	.3	18.9
-1	.0	2.6	13.9	1.0	.0	.0	341	.1	17.4
-2	.1	5.1	14.4	.5	.0	.0	396	.1	19.9
-3	.0	4.6	5.2	.3	.0	.0	195	.0	10.0
-4	.2	4.6	3.3	.2	.0	.0	161	.1	8.2
-5	.2	3.3	1.4	.1	.0	.0	97	.0	5.0
-6	.3	1.4	.3	.0	.0	.0	37	.0	1.9
-7/-8	.2	.8	.2	.0	.0	.0	24	.0	1.2
-9/-10	.4	.2	.0	.0	.0	.0	11	.0	.6
-11/-13	.0	.1	.0	.0	.0	.0	2	.0	.1
TOTAL							1957		
PCT	1.6	24.7	63.9	8.4	1.3	.1	100.0	.8	99.2

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.9	.0	.0	.0	.0	.9	.4	1.0	.1	.0	.0	.0	1.6
1-2	.2	2.5	.5	.0	.0	.0	3.2	.4	2.1	.6	.0	.0	.0	3.1
3-4	.0	.5	.3	.0	.0	.0	.8	.0	.6	.3	.0	.0	.0	.9
5-6	.0	.0	.1	.1	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	3.9	.9	.1	.0	.0	5.1	.8	3.7	1.0	.0	.0	.0	5.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	1.2	.1	.0	.0	.0	1.8	1.3	1.6	.0	.0	.0	.0	2.9
1-2	.6	5.4	.9	.0	.0	.0	6.9	.3	7.6	2.4	.0	.0	.0	10.3
3-4	.0	2.0	1.2	.0	.0	.0	3.2	.0	2.6	3.3	.0	.0	.0	5.9
5-6	.0	.1	.6	.2	.0	.0	.8	.0	.4	2.5	.5	.0	.0	3.4
7	.0	.0	.1	.2	.0	.0	.4	.0	.0	.7	.3	.0	.0	.9
8-9	.0	.0	.0	.1	.0	.0	.1	.0	.0	.1	.1	.0	.0	.2
10-11	.0	.0	.0	.1	.0	.0	.1	.0	.0	.2	.0	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	8.8	2.8	.6	.0	.0	13.3	1.6	12.3	9.2	.8	.0	.0	23.9

PERIOD: (OVER-ALL) 1963-1973

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL
<1	1.0	1.8	.0	.0	.0	.0	2.8	.4	1.4	.0	.0	.0	.0	1.7	
1-2	.6	5.6	1.1	.0	.0	.0	7.3	.3	5.1	1.3	.0	.0	.0	6.7	
3-4	.0	1.0	2.0	.0	.0	.0	3.0	.0	1.3	1.7	.0	.0	.0	3.0	
5-6	.0	.0	.6	.0	.0	.0	.6	.0	.0	1.0	.0	.0	.0	1.0	
7	.0	.2	.6	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.6	8.7	4.2	.1	.0	.0	14.6	.7	7.8	4.0	.0	.0	.0	12.4	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL
<1	.1	1.1	.0	.0	.0	.0	1.2	.7	.8	.0	.0	.0	.0	1.4	
1-2	.1	3.4	.7	.0	.0	.0	4.2	.3	2.6	.8	.0	.0	.0	3.7	
3-4	.0	1.8	2.7	.0	.0	.0	4.0	.2	.7	1.4	.0	.0	.0	2.3	
5-6	.0	.0	.3	.0	.0	.0	.3	.0	.3	.6	.0	.0	.0	.9	
7	.0	.0	.2	.0	.0	.0	.2	.0	.0	.3	.1	.0	.0	.4	
8-9	.0	.1	.0	.2	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	6.4	3.4	.2	.0	.0	10.1	1.1	4.4	3.1	.1	.0	.0	8.8	93.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	10.9	9.7	.2	.0	.0	.0	20.9	085
1-2	3.1	34.3	8.1	.0	.0	.0	45.5	
3-4	.2	10.3	12.2	.0	.0	.0	22.6	
5-6	.0	.9	5.6	.8	.0	.0	7.2	
7	.0	.2	1.8	.4	.0	.0	2.6	
8-9	.0	.1	.1	.5	.0	.0	.8	
10-11	.0	.0	.2	.1	.0	.0	.3	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	14.2	55.5	28.2	2.0	.0	.0	100.0	686

PERIOD: (OVER-ALL) 1950-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	7.8	26.7	14.9	5.3	1.2	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	954	2
6-7	.1	2.1	6.9	4.8	2.5	1.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	174	4
8-9	.0	.8	2.1	2.3	1.1	.7	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	74	3
10-11	.0	.6	.8	.5	.5	.5	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	28	5
12-13	.0	.0	.8	.5	.5	.2	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21	6
>13	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	6
INDEX	7.5	2.3	1.8	.8	.9	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	135	2
TOTAL PCT	15.4	32.2	27.1	14.4	6.6	3.0	1.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	989	3



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SEA THP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
95+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/97	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.2	.1	.7	.3	.1	.3	.1	.1	.1	.3	.2	.1	23	.2
87/88	1.5	1.6	2.7	3.1	2.8	1.6	.6	.5	.7	1.1	1.0	.9	216	1.5
85/86	7.2	9.7	16.3	22.6	25.4	15.4	8.7	5.3	5.2	8.1	9.8	8.1	1693	11.8
83/84	31.7	38.6	40.7	49.1	50.7	49.4	46.6	29.0	27.5	37.5	38.3	36.3	5550	39.1
81/82	46.2	43.2	33.7	22.7	19.0	28.1	41.0	47.0	49.1	39.8	39.9	45.6	5378	37.8
79/80	9.1	8.4	5.9	1.8	1.6	4.2	7.6	13.9	11.7	9.6	6.4	7.3	1058	7.4
77/78	2.5	.8	.3	.3	.2	.6	1.0	3.0	4.3	3.0	1.7	1.0	220	1.5
75/76	.2	.3	.0	.1	.1	.3	.2	.7	.4	.6	.6	.6	46	.3
73/74	.1	.4	.1	.0	.0	.2	.0	.3	.2	.3	.0	.0	21	.1
71/72	.0	.0	.1	.0	.0	.0	.1	.2	.3	.1	.0	.1	10	.1
69/70	.0	.0	.0	.0	.0	.0	.2	.0	.1	.0	.0	.0	3	.0
67/68	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
65/66	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
63/64	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
61/62	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
59/60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
57/58	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
55/56	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
53/54	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
51/52	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
49/50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	1102	1064	1263	1160	1218	1195	1277	1275	1162	1179	1145	1171	14211	

PRESSURE (MB)

AVERAGE BY QUARTER											TOTAL
MD	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	QBS	
JAN	1011	1009	1012	1008	1010	1009	1010	1008	1010	130	
FEB	1010	1012	1010	1009	1009	1011	1009	1010	1010	267	
MAR	1010	1011	1010	1009	1009	1009	1010	1009	1010	294	
APR	1010	1010	1009	1008	1009	1009	1009	1008	1009	266	
MAY	1010	1011	1009	1010	1009	1011	1009	1008	1009	284	
JUN	1011	1011	1010	1009	1009	1010	1010	1009	1010	228	
JUL	1011	1010	1010	1009	1010	1011	1011	1010	1010	317	
AUG	1011	1011	1010	1009	1010	1010	1010	1009	1010	309	
SEP	1011	1011	1011	1010	1010	1010	1011	1011	1011	253	
OCT	1011	1012	1010	1010	1010	1010	1011	1010	1011	222	
NOV	1011	1007	1010	1008	1010	1010	1010	1009	1010	262	
DEC	1010	1008	1009	1007	1009	1009	1010	1008	1009	230	
ANN	1011	1010	1010	1009	1009	1010	1010	1009	1010	3000	
CBS	470	64	980	236	507	93	433	277			

NO	114	1%	5%	25%	50%	75%	95%	99%	MAX
FAH	1703	1004	1007	1008	1010	1011	1014	1013	1014
IEB	1005	1006	1006	1008	1010	1011	1013	1013	1014
MAR	1004	1005	1006	1009	1010	1011	1012	1012	1013
APR	1005	1005	1006	1008	1009	1010	1012	1012	1013
MAY	1005	1005	1007	1008	1009	1010	1013	1014	1015
JUN	1006	1006	1007	1008	1010	1011	1013	1014	1015
JUL	1006	1006	1007	1009	1011	1011	1013	1014	1016
AUG	1005	1006	1007	1009	1010	1011	1013	1014	1015
SEP	1005	1007	1008	1009	1011	1012	1014	1014	1015
OCT	1006	1006	1007	1009	1010	1011	1013	1013	1014
NOV	1004	1005	1006	1009	1010	1011	1013	1013	1014
DEC	1004	1004	1006	1008	1009	1011	1013	1013	1014

PERIOD: (PRIMARY) 1916-1973  
(OVER-ALL) 1853-1973

JANUARY

Area 0004 NORTHWEST JAVA SEA  
3.65 104, E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WNO DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DR7L	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FGG NO PCPN	FGG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	3.6	10.7	2.7	.0	.0	.0	.0	17.0	.0	5.4	3.6	.0	.0	.0	75.9
NE	10.5	.0	.0	.0	.0	.0	.0	10.5	.0	31.6	.0	.0	.0	.0	68.4
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	.0	50.0	.0	.0	.0	.0	.0	50.0	.0	.0	.0	.0	.0	.0	50.0
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	27.3	.0	.0	.0	.0	72.7
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.3	.0	.0	.0	.0	95.7
W	6.5	11.4	1.6	.0	.0	.0	.0	19.5	3.3	9.6	.0	.0	.0	.0	70.7
NW	4.8	10.3	2.4	.0	.0	.0	.0	17.5	1.4	5.5	2.7	.0	.0	.0	72.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	.0	.0	.0	80.0
TOT PCT	4.3	9.3	1.9	.0	.0	.0	.0	15.5	1.2	8.1	1.9	.0	.0	.0	74.5
TOT OBS	161														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DR7L	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THOR LTNG	FGG NO PCPN	FGG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.0	6.3	6.3	.0	.0	.0	.0	12.5	6.3	3.1	6.3	.0	.0	.0	71.9
05009	.0	9.3	.0	.0	.0	.0	.0	9.3	.0	.0	.0	.0	.0	.0	90.7
12015	10.9	.0	2.2	.0	.0	.0	.0	13.0	.0	17.4	.0	.0	.0	.0	69.6
18021	7.3	10.4	1.8	.0	.0	.0	.0	25.5	.0	14.5	1.8	.0	.0	.0	61.8
TOT PCT TOT OBS:	5.1 170	8.5	2.3	.0	.0	.0	.0	15.9	1.1	9.7	1.7	.0	.0	.0	72.7

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)						48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00					03	06	09	12	15	18	21
N	1.1	9.9	4.4	.2	.0	.0		15.6	8.6	13.3	.0	11.7	15.0		16.7	16.7	18.8
NE	1.9	1.6	.5	.0	.0	.0		3.6	4.7	1.2	.0	1.6	4.2	8.0	.0	5.0	2.5
E	.8	.8	.0	.0	.0	.0		1.7	3.9	.0	.0	.0	4.2	3.0	.0	2.4	1.2
SE	.2	1.0	.0	.0	.0	.0		1.2	4.6	.4	.0	.0	4.2	3.0	.0	.5	.0
S	.5	1.4	.4	.0	.0	.0		2.2	6.4	2.1	.0	1.6	4.2	3.0	.0	1.9	1.2
SW	1.3	4.3	.8	.0	.0	.0		6.4	6.9	5.1	.0	5.7	6.7	8.5	16.7	4.8	8.0
W	2.3	12.4	4.8	.6	.0	.0		20.2	9.5	22.3	62.5	23.4	19.2	12.8	33.3	20.0	21.6
NW	1.6	26.0	14.8	.4	.0	.0		42.9	9.7	49.4	37.5	50.8	35.8	35.3	33.3	42.1	42.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.0							6.0	.0	6.0	.0	5.2	6.7	8.0	.0	6.7	3.7
TOT OBS	84	306	136	6	0	0	532		8.1	83	4	96	60	100	3	105	81
TOT PCT	15.8	57.5	25.6	1.1	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	6.8	8.0	.8	.1	.0		15.6	8.6	12.6	13.0	18.4	17.6	
NE	2.9	.9	.0	.0	.0		3.8	4.7	1.1	2.6	7.8	3.9	
E	1.5	.2	.0	.0	.0		1.7	3.9	.0	1.6	2.9	1.9	
SE	1.1	.1	.0	.0	.0		1.2	4.6	.0	1.6	2.9	1.3	
S	1.4	.8	.0	.0	.0		2.2	6.4	2.0	2.5	2.9	1.6	
SW	3.5	2.7	.2	.0	.0		6.4	6.9	4.9	6.1	8.7	6.2	
W	8.6	10.1	1.4	.0	.0		20.2	9.5	24.1	21.8	13.3	20.7	
NW	11.7	28.0	3.1	.1	.0		42.9	9.7	48.9	45.0	35.2	42.5	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	6.0						6.0	.0	5.7	5.8	7.8	5.4	
TOT OBS	232	270	29	1	0	532		8.1	87	156	163	186	
TOT PCT	43.6	50.8	5.5	.2	.0		100.0		100.0	100.0	100.0	100.0	

JANUARY

PERIOD: (PRIMARY) 1916-1973  
(OVER-ALL) 1895-1973APEA 0004 NORTHWEST JAVA SEA  
3.65 106.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47	48+			
00003	5.7	4.6	60.9	27.6	1.1	.0	.0	8.5	100.0	87
06009	5.8	12.2	57.7	23.7	.8	.0	.0	7.6	100.0	156
12015	7.8	13.6	56.3	21.4	1.0	.0	.0	7.3	100.0	103
18021	5.4	8.1	56.5	28.5	1.6	.0	.0	8.7	100.0	186
TOT	32	52	305	136	6	0	0	8.1		532
PCT	6.0	9.8	57.5	25.6	1.1	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.4	2.8	7.0	6.0		5.9
NE	.0	1.4	.4	.0		4.2
E	.0	.0	.0	.0		.0
SE	.0	.0	1.4	.0		6.0
S	.0	.0	1.1	.0		7.0
SW	1.4	.0	2.1	1.1		5.3
W	1.4	2.8	5.3	6.7		6.0
NW	1.4	2.8	26.4	15.8		6.5
VAR	.0	.0	.0	.0		.0
CALM	1.4	.0	8.5	1.4		5.8
TOT OBS	5	7	37	22	71	6.1
TOT PCT	7.0	9.9	52.1	31.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

HND DIR																	HND DIR									
WND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS								
N	1.4	2.8	7.0	6.0		5.9	.0	.0	1.4	1.4	2.5	1.8	.0	.0	.0	.0	10.2									
NE	.0	1.4	.4	.0		4.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8									
E	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0									
SE	.0	.0	1.4	.0		6.0	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0									
S	.0	.0	1.1	.0		7.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	.0	.0									
SW	1.4	.0	2.1	1.1		5.3	.0	.0	.7	.0	1.4	.4	.4	.0	.0	.0	1.8									
W	1.4	2.8	5.3	6.7		6.0	.0	.0	.7	1.4	2.1	1.1	.0	.0	.0	.0	10.9									
NW	1.4	2.8	26.4	15.8		6.5	.0	.0	.0	2.8	9.5	2.5	1.4	.0	.0	.0	30.3									
VAR	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0									
CALM	1.4	.0	8.5	1.4		5.8	.0	.0	.0	.0	.0	1.4	.0	.0	.0	.0	9.9									
TOT OBS	5	7	37	22	71	6.1	0	0	2	4	12	5	2	0	0	0	46									
TOT PCT	7.0	9.9	52.1	31.0	100.0		.0	.0	2.8	5.6	16.9	7.6	2.8	.0	.0	.0	64.8	100.0								

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)			
	>10	>5	>2	>1
> OR >6500	.0	.0	.0	.0
> OR >5000	.0	.0	.0	.0
> OR >3500	1.4	2.7	2.7	2.7
> OR >2000	8.2	9.6	9.6	9.6
> OR >1000	23.3	26.0	26.0	26.0
> OR >600	24.7	28.8	30.1	31.5
> OR >300	24.7	31.5	32.9	34.2
> OR >150	24.7	31.5	32.9	34.2
> OR > 0	24.7	31.5	32.9	34.2
TOTAL	18	23	24	25

TOTAL NUMBER OF OBS: 73

PCT FREQ NH &lt;5/8: 65.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
3.9	14.3	11.7	24.7	10.4	9.1	11.7	6.5	7.8	.0	77

PERIOD: (PRIMARY) 1916-1973  
(OVER-ALL) 1855-1973

JANUARY

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.5E

TABLE 4

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.3	.0	.0	.0	.0	.0	.6	.9	.0	.0	1.9	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.6	
	TOT %	.3	.0	.0	.0	.0	.0	.6	1.6	.0	.0	2.5	
5<10	PCP	1.6	.3	.0	.0	.0	.0	3.1	5.0	.0	.0	9.9	
	NO PCP	7.6	1.2	2.5	.0	.5	.9	3.0	12.7	.0	.0	28.6	
	TOT %	9.2	1.5	2.5	.0	.5	.9	6.1	17.7	.0	.0	38.5	
10+	PCP	1.1	.0	.0	.6	.0	.0	.0	2.0	.0	.0	3.7	
	NO PCP	6.2	1.4	.0	.0	1.2	3.1	17.4	24.1	.0	5.6	54.7	
	TOT %	7.3	1.4	.0	1.2	1.2	3.1	17.4	26.1	.0	5.6	58.4	
TOT OBS													161
TOT PCT		17.4	3.0	2.5	1.2	1.7	3.6	19.1	45.3	.0	6.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.6	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	
	4-10	.2	.0	.0	.0	.0	.0	.8	.9	.0	.0	1.9	
	11-21	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.2	.0	.0	.0	.0	.0	.8	1.3	.0	.3	2.5	
5<10	0-3	.3	.3	.6	.0	.0	.0	.0	.0	.0	.3	1.6	
	4-10	3.1	.6	.6	.0	.2	.6	1.4	7.0	.0	.0	13.6	
	11-21	1.4	.0	.0	.0	.0	.2	1.5	2.3	.0	.0	5.4	
	22+	.2	.0	.0	.0	.0	.0	.5	.3	.0	.0	.9	
	TOT %	5.0	.9	1.3	.0	.2	.7	3.4	9.6	.0	.3	21.5	
10+	0-3	1.0	1.1	.3	.2	.5	1.6	2.4	2.1	.0	6.9	16.1	
	4-10	9.5	.9	.6	.8	.8	1.4	9.6	18.1	.0	.0	41.6	
	11-21	3.2	.3	.0	.0	.0	.9	1.4	11.8	.0	.0	17.7	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	13.6	2.3	.9	.9	1.3	3.9	13.4	32.0	.0	6.9	75.4	
TOT OBS													317
TOT PCT		19.1	3.2	2.2	.9	1.5	4.7	17.9	42.9	.0	7.6	100.0	

## JANUARY

PERIOD: (PRIMARY) 1916-1973  
(OVER-ALL) 1855-1973

AREA 0004 NORTHWEST JAVA SEA  
3.6S 106.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	10.5	10.5	10.5	5.3	.0	.0	.0	36.6	63.2	19
06009	.0	.0	.0	5.3	21.1	5.3	.0	.0	.0	.0	31.6	68.4	19
12015	.0	.0	4.3	4.3	17.4	.0	.0	.0	.0	.0	26.1	73.9	23
18021	.0	.0	7.1	.0	14.3	14.3	7.1	.0	.0	.0	42.9	57.1	14
TOT	0	0	2	4	12	5	2	0	0	0	25	50	75
PCT	.0	.0	2.7	5.3	16.0	6.7	2.7	.0	.0	.0	32.3	66.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	4.0	26.0	70.0	50
06009	.0	.0	.0	1.3	16.3	82.5	80
12015	.0	.0	1.2	2.5	14.8	81.5	81
18021	.0	.0	.8	2.5	28.1	68.6	121
TOT	0	0	2	8	72	250	332
PCT	.0	.0	.6	2.4	21.7	75.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	10.5	26.3	63.2	19
06009	.0	.0	5.3	26.3	68.4	19
12015	.0	4.3	8.7	17.4	73.9	23
18021	.0	8.3	8.3	41.7	50.0	12
TOT	0	2	6	19	48	73
PCT	.0	2.7	8.2	24.0	65.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	1.6	1.6	2.4	.0	7	5.6
80/84	.0	.0	.0	.0	.8	22.6	38.7	9.7	89	71.8
75/79	.0	.0	.0	.0	.0	.8	10.5	11.3	28	22.6
TOTAL	0	0	0	0	3	31	64	26	124	100.0
PCT	.0	.0	.0	.0	2.4	25.0	51.6	21.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.8	.8	.0	.0	.4	2.8	.0	.8
80/84	14.9	2.4	2.4	.8	.8	2.8	8.9	31.5	.0	7.3
75/79	5.4	.6	.0	.0	.6	.2	6.0	9.7	.0	.0
TOTAL	20.4	3.0	3.2	1.6	1.4	3.0	15.3	44.0	.0	8.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	85	83	80	76	75	75	80.3	89
06009	89	87	86	82	79	76	76	82.2	156
12015	86	85	84	81	78	76	76	81.1	111
18021	83	82	82	80	74	75	72	79.9	190
TOT	89	87	85	81	77	75	72	80.9	546

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	.0	.0	8.3	75.0	16.7	85	24
06009	.0	.0	.0	.0	8.6	42.9	42.9	5.7	79	35
12015	.0	.0	.0	2.7	27.0	48.6	21.6	83	37	37
18021	.0	.0	.0	.0	14.3	50.0	35.7	87	42	42
TOT	0	0	0	0	4	33	72	29	84	138

PERIOD: (PRIMARY) 1916-1973  
(OVER-ALL) 1855-1973

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DFG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	89 88	89 92	TOT	# FOG	#0 FOG
5	.0	.0	.0	1.5	.8	3	.0	2.3
4	.0	.0	.0	.9	.0	1	.0	.9
3	.0	.0	.0	.8	.0	1	.0	.8
2	.0	.0	4.5	.0	.0	6	.0	4.5
1	.0	.8	4.5	1.5	.0	9	.0	6.8
0	.0	5.3	15.9	.0	.0	28	.8	20.5
-1	.0	5.3	9.8	1.4	.0	22	.0	16.7
-2	.0	12.1	16.7	.0	.0	38	.0	28.8
-3	.0	4.5	3.8	.0	.0	11	.0	8.3
-4	.8	4.5	.8	.0	.0	8	.0	6.1
-5	.0	3.0	.0	.0	.0	4	.0	3.0
-6	.0	.0	.8	.0	.0	1	.0	.8
TOTAL	1	47	75	8	1	192	1	131
PCT	.8	35.6	56.8	6.1	.8	100.0	.8	99.2

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	5.9	.0	.0	.0	.0	5.9	2.9	.0	.0	.0	.0	.0	2.9
1-2	.0	7.4	.0	.0	.0	.0	7.4	.0	.7	.0	.0	.0	.0	.7
3-4	.0	.0	4.4	.0	.0	.0	4.4	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	2.9	.0	.0	.0	2.9	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	13.2	7.4	.0	.0	.0	20.6	2.9	.7	.0	.0	.0	.0	3.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	2.9	.0	.0	.0	.0	2.9
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	2.9	.0	.0	.0	.0	2.9

PERIOD: (OVER-ALL) 1963-1973

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S						PCT	SW						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	2.2	.0	.0	.0	.0	2.2	.0	1.5	.0	.0	.0	.0	1.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.2	.0	.0	.0	.0	2.2	.0	1.5	.0	.0	.0	.0	1.5

HGT	W						PCT	NW						TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	4.4	.0	.0	.0	.0	4.4	.0	19.1	8.8	.0	.0	.0	27.9
3-4	.0	2.9	.0	.0	.0	.0	2.9	.0	.0	13.2	.0	.0	.0	13.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.9	.0	.0	.0	5.9
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	7.4	.0	.0	.0	.0	7.4	.0	19.1	27.9	.0	.0	.0	47.1 95.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	19.4	8.3	.0	.0	.0	.0	27.8	
1-2	2.8	33.3	8.3	.0	.0	.0	44.4	
3-4	.0	2.8	16.7	.0	.0	.0	19.4	
5-6	.0	.0	8.3	.0	.0	.0	8.3	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	22.2	44.4	33.3	.0	.0	.0	100.0	36

PERIOD: (OVER-ALL) 1950-1973

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	14.8	29.6	27.8	3.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	41	2
6-7	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	5
8-9	.0	.0	1.9	.0	1.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDEX	14.8	.0	3.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10	1
TOTAL	16	16	18	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	2
PCT	29.6	29.6	33.3	5.6	1.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1913-1973  
(OVER-ALL) 1957-1973

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3.0S 106.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OBS TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	1.1	5.5	.0	.0	.0	.0	.0	6.6	.0	4.4	2.2	.0	.0	.0	38.0
NE	5.0	.0	.0	.0	.0	.0	.0	5.0	.0	17.5	20.0	.0	.0	.0	62.5
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	44.4	.0	.0	.0	55.6
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SW	6.3	.0	.0	.0	.0	.0	.0	6.3	.0	.0	.0	.0	.0	.0	93.8
W	14.3	4.4	.0	.0	.0	.0	.0	18.7	.0	12.2	.0	.0	.0	.0	76.9
NW	6.4	11.9	.0	.0	.0	.0	.0	18.3	.0	7.8	1.8	.0	1.8	.0	74.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	.0	.0	.0	80.0
TOT PCT	5.3	6.6	.0	.0	.0	.0	.0	11.9	.0	7.9	3.3	.0	.7	.0	79.5
TOT OBS:	151														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OBS TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00Z03	11.1	7.4	.0	.0	.0	.0	.0	18.5	.0	3.7	.0	.0	.0	.0	81.5
06Z09	.0	5.0	.0	.0	.0	.0	.0	5.0	.0	.0	5.0	.0	.0	.0	90.0
12Z15	2.4	2.4	.0	.0	.0	.0	.0	4.9	.0	14.6	4.9	.0	2.4	.0	75.6
18Z21	7.8	9.8	.0	.0	.0	.0	.0	17.6	.0	11.8	2.0	.0	.0	.0	74.5
TOT PCT	5.0	6.3	.0	.0	.0	.0	.0	11.3	.0	8.2	3.1	.0	.6	.0	79.9
TOT OBS:	159														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FRFQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	2.7	16.5	4.2	.3	.0	.0		23.7	8.0	23.2	25.0	16.4	21.8	25.5	40.0	28.6	21.7	
NE	.9	3.0	.7	.0	.0	.0		4.6	6.8	.4	6.3	2.1	7.3	5.9	.0	6.1	4.3	
E	1.9	.8	.0	.0	.0	.0		2.7	3.0	1.8	21.9	.0	6.4	5.2	.0	1.9	1.4	
SE	.4	.8	.0	.0	.0	.0		1.3	5.3	.0	3.1	.0	2.7	2.7	.0	1.0	.7	
S	1.0	1.8	.0	.0	.0	.0		2.8	4.9	.0	.0	1.4	1.8	3.8	20.0	5.6	.7	
SW	1.5	3.0	.8	.0	.0	.0		5.3	6.7	8.9	.0	5.0	4.5	4.3	.0	4.9	6.5	
W	2.1	7.6	4.0	.0	.0	.0		13.7	8.2	11.6	12.5	20.0	17.3	13.7	10.0	11.2	10.1	
NW	2.6	26.0	7.9	.2	.0	.0		36.7	8.3	50.4	31.3	47.9	29.1	24.7	10.0	33.0	44.2	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	9.4							9.4	.0	3.6	.0	7.1	9.1	16.1	20.0	7.8	10.1	
TOT OBS	103	273	81	2	0	0	459		7.0	56	8	70	33	93	5	103	69	
TOT PCT	22.4	59.5	17.4	.4	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	9.9	12.7	1.1	.0	.0		23.7	8.0	23.4	18.8	26.3	25.9	
NE	2.5	2.1	.0	.0	.0		4.6	6.8	1.2	4.4	5.6	5.4	
E	2.6	.1	.0	.0	.0		2.7	3.0	4.3	2.0	3.1	1.7	
SE	.8	.4	.0	.0	.0		1.3	5.3	.4	1.2	2.6	.9	
S	2.1	.7	.0	.0	.0		2.8	4.9	.0	1.6	4.6	3.6	
SW	2.6	2.7	.0	.0	.0		5.3	6.7	7.8	4.8	4.1	5.5	
W	5.8	7.2	.7	.0	.0		13.7	8.2	11.7	18.8	13.5	10.8	
NW	14.5	20.4	1.7	.0	.0		36.7	8.3	48.0	39.6	24.0	37.5	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	9.4						9.4	.0	3.1	8.0	16.3	8.7	
TOT OBS	230	213	16	0	0	459		7.0	64	125	98	172	
TOT PCT	50.1	46.4	3.5	0	0		100.0		100.0	100.0	100.0	100.0	



PERIOD: (PRIMARY) 1913-1973  
(OVER-ALL) 1857-1973

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AREA 0004 NORTHWEST JAVA SEA  
3.65 106.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47	48+			
0000	3.1	15.6	60.9	20.3	.0	.0	.0	7.7	100.0	64
0600	8.0	16.6	60.0	15.2	.0	.0	.0	6.6	100.0	125
1200	16.3	14.3	56.1	12.2	1.0	.0	.0	6.1	100.0	98
1800	8.7	8.7	60.5	21.5	.6	.0	.0	7.6	100.0	172
TOT	43	60	273	81	2	0	0	7.0		459
PCT	9.4	13.1	59.5	17.6	.4	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.1	4.2	11.7	11.0		4.4
NE	.0	3.4	1.9	.0		4.8
E	.0	.0	1.1	.0		6.0
SE	.0	.0	.4	.0		5.0
S	.0	1.1	.0	.6		4.0
SW	.0	.4	1.5	.0		6.4
W	2.7	10.4	2.7	1.5		3.8
NW	.8	7.6	17.0	13.3		6.5
VAR	.0	.0	.0	.0		.0
CALM	1.5	.0	4.5	.0		5.2
TOT OBS	4	18	27	17	66	5.8
TOT PCT	6.1	27.3	40.9	25.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)  
AND OCCURRENCE OF 'M' <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	3.0	3.0	1.1	.0	.0	.0	.0	20.8	
.0	.0	.0	.0	.0	1.5	.0	.0	.0	.0	3.8	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.9	
.0	.0	.0	.0	2.7	.0	.0	.0	.0	.0	14.8	
.9	.0	.0	4.5	4.9	3.4	3.0	.0	.0	.0	22.7	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	1.5	.0	1.5	.0	.0	.0	3.0	
0	0	0	5	8	4	3	0	0	0	46	66
.0	.0	.0	7.6	12.1	6.1	4.5	.0	.0	.0	69.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>12	>14	>16	>18	>20	>22	>24
>6500	.0	.0	.0	.0	.0	.0	.0	.0
>5000	.0	.0	.0	.0	.0	.0	.0	.0
>3500	1.5	4.4	4.4	4.4	4.4	4.4	4.4	4.4
>2000	7.4	10.3	10.3	10.3	10.3	10.3	10.3	10.3
>1000	19.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1
>600	25.0	29.4	29.4	29.4	29.4	29.4	29.4	29.4
>300	25.0	29.4	29.4	29.4	29.4	29.4	29.4	29.4
>150	25.0	29.4	29.4	29.4	29.4	29.4	29.4	29.4
>0	25.0	29.4	29.4	29.4	29.4	29.4	29.4	29.4
TOTAL	17	20	20	20	20	20	20	20

TOTAL NUMBER OF OBS: 66

PCT FREQ NH <4/8: 70.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
1.4	16.4	20.5	21.9	11.0	8.2	6.8	6.8	6.8	.0	73

PERIOD: (PRIMARY) 1913-1973  
(OVER-ALL) 1957-1973

FEBRUARY

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.0	.0	.0	.0	.0	1.3	.7	.0	.0	.0	2.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	1.3	.7	.0	.0	.0	2.0	.0
5<10	PCP	2.0	.3	.0	.0	.0	.2	.8	4.6	.0	.0	7.9	.0
	NO PCP	7.6	3.3	.0	1.0	1.7	1.3	2.3	9.3	.0	.7	27.2	.0
	TOT %	9.6	3.6	.0	1.0	1.7	1.5	3.1	13.9	.0	.7	35.1	.0
10+	PCP	.0	.0	.0	.0	.0	.7	1.3	.0	.0	.0	2.0	.0
	NO PCP	20.7	3.0	1.2	.5	1.5	1.2	9.9	20.4	.0	2.6	60.9	.0
	TOT %	20.7	3.0	1.2	.5	1.5	1.2	10.6	21.7	.0	2.6	62.9	.0
TOT OBS													151
TOT PCT		30.3	6.6	1.2	1.5	3.1	2.4	15.1	36.3	.0	3.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.4	.7	.0	.0	1.1	.0
	11-21	.0	.0	.0	.0	.0	.0	.4	.6	.0	.0	1.1	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.2	.0	.0	.0	.0	.0	.7	1.3	.0	.0	2.2	.0
5<10	0-3	.7	.7	.0	.4	.4	.0	.0	.7	.0	.7	3.7	.0
	4-10	4.1	1.1	.0	.2	.6	.7	1.5	6.3	.0	.0	14.4	.0
	11-21	.6	.2	.0	.0	.0	.1	.6	1.1	.0	.0	2.6	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	5.4	2.0	.0	.6	.9	.8	2.1	8.1	.0	.7	20.7	.0
10+	0-3	2.1	.6	2.4	.0	.0	1.1	1.3	2.8	.0	8.9	19.2	.0
	4-10	13.2	2.1	.3	1.0	1.8	1.6	5.1	20.0	.0	.0	45.0	.0
	11-21	4.1	.7	.0	.0	.0	.6	2.7	4.5	.0	.0	12.5	.0
	22+	.3	.0	.0	.0	.0	.0	.0	.1	.0	.0	.4	.0
	TOT %	19.6	3.5	2.7	1.0	1.8	3.2	9.0	27.4	.0	8.9	77.1	.0
TOT OBS													271
TOT PCT		29.2	5.5	2.7	1.6	2.7	4.1	11.9	36.8	.0	9.6	100.0	

## FEBRUARY

PERIOD: (PRIMARY) 1913-1973  
(OVER-ALL) 1857-1973AREA 0004 NORTHWEST JAVA SEA  
3.05 106.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	190 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	11.8	23.5	5.9	.0	.0	.0	.0	41.2	58.8	17
06009	.0	.0	.0	.0	16.7	.0	.0	.0	.0	.0	16.7	83.3	18
12015	.0	.0	.0	5.3	5.3	10.5	10.5	.0	.0	.0	31.6	68.4	19
18021	.0	.0	.0	11.1	.0	5.6	5.6	.0	.0	.0	22.2	77.8	18
TOT	0	0	0	5	8	4	3	0	0	0	20	52	72
PCT	.0	.0	.0	6.9	11.1	5.6	4.2	.0	.0	.0	27.8	72.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<3	3<10	10+	TOTAL OBS
00003	.0	.0	.0	.0	14.3	85.7	42
06009	.0	.0	.0	.0	22.4	77.6	67
12015	.0	.0	.0	2.9	22.1	75.0	68
18021	.0	.0	.0	3.9	23.5	72.5	102
TOT	0	0	0	6	60	213	279
PCT	.0	.0	.0	2.2	21.5	76.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	11.8	29.4	58.8	17
06009	.0	.0	.0	17.6	82.4	17
12015	.0	.0	5.6	27.8	66.7	18
18021	.0	.0	12.5	12.5	75.0	16
TOT	0	0	5	15	48	68
PCT	.0	.0	7.4	22.1	70.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.8	.8	.0	.0	2	1.6
85/89	.0	.0	.0	.0	.8	4.1	1.6	.0	8	6.6
80/84	.0	.0	.0	.0	.8	23.0	41.8	11.5	94	77.0
75/79	.0	.0	.0	.0	.8	6.6	7.4	.0	18	14.8
TOTAL	0	0	0	0	3	35	61	23	122	100.0
PCT	.0	.0	.0	.0	2.5	28.7	50.0	18.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.8	.0	.0	.0	.0	.0	.6	.2	.0	.0
85/89	.6	.8	.6	.2	.0	.0	.8	3.5	.0	.0
80/84	25.2	6.1	.0	1.6	1.6	2.7	9.0	26.6	.0	4.1
75/79	3.9	.0	.0	.0	.6	.2	.5	5.5	.0	.0
TOTAL	30.5	7.0	.6	1.8	2.3	2.5	15.0	35.9	.0	4.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	87	84	81	78	74	74	80.7	63
06009	92	90	87	82	78	77	76	82.4	124
12015	85	84	84	82	78	76	76	81.4	98
18021	83	82	82	81	77	75	73	80.4	167
TOT	92	87	85	81	78	75	73	81.2	452

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	26.3	47.4	26.3	84	19
06009	.0	.0	8.3	52.3	39.3	5.0	79	36
12015	.0	.0	.0	33.3	51.5	15.2	83	33
18021	.0	.0	.0	14.3	57.1	28.6	86	42
TOT	0	0	3	41	62	24	83	130

## FEBRUARY

PERIOD: (PRIMARY) 1913-1973  
(OVER-ALL) 1857-1973

TABLE 17

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.6EPCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TEMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
9/10	.0	.0	.0	.0	.8	1	.0	.8
7/8	.0	.0	.0	.0	.8	1	.0	.8
4	.0	.0	.8	.8	.0	2	.0	1.5
3	.0	.0	.0	.8	.0	1	.8	.0
2	.0	.0	6.0	.8	.0	9	.0	6.8
1	.0	.0	9.0	1.5	.0	14	.0	10.5
0	.0	3.8	19.5	7.3	.0	34	.8	24.8
-1	.0	4.5	13.5	.0	.0	24	.0	16.0
-2	.0	4.5	11.3	.0	.0	21	.0	13.3
-3	.0	6.0	3.8	.0	.0	13	.0	9.8
-4	.0	3.8	.8	.0	.0	6	.0	4.5
-5	.0	1.5	2.3	.0	.0	5	.0	3.8
-7/-8	.0	.8	.0	.0	.0	1	.0	.8
-9/-10	.8	.0	.0	.0	.0	1	.0	.8
TOTAL	1	33	89	8	2	133	2	131
PCT	.8	24.8	66.9	6.0	1.5	100.0	1.5	98.5

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	2.6	2.6	.0	.0	.0	.0	5.1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	13.5	2.6	.0	.0	.0	16.0	.0	.0	.0	.0	.0	.0	.8
3-4	.0	.0	4.5	.0	.0	.0	4.5	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	1.9	1.9	.0	.0	3.8	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.6	16.0	9.0	1.9	.0	.0	29.5	.0	.8	.0	.0	.0	.0	.8

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	1.9	.0	.0	.0	.0	1.9	.0	.8	.0	.0	.0	.0	.8
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.9	.0	.0	.0	.0	1.9	.0	.8	.0	.0	.0	.0	.8

PERIOD: (OVER-ALL) 1963-1973

FEBRUARY

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
1-2	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
3-4	.0	.0	.0	.0	.0	.0		.0	.0	.0	2.6	.0	.0	.0		2.6
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.0	.0	.0	.0	.0	.0		.0	.0	2.6	.0	.0	.0	.0		2.6

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	.0	.0	.0	.0	.0		.0	2.6	2.6	.0	.0	.0	.0		5.1	
1-2	2.6	7.1	7.1	.0	.0	.0	16.7	.0	.0	17.3	3.2	.0	.0	.0		20.5	
3-4	.0	4.5	.0	.0	.0	.0	4.5	.0	.0	2.6	5.8	.0	.0	.0		6.4	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.8	.0	.0	.0		6.4	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.6	.0	.0	.0		2.6	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	2.6	11.5	7.1	.0	.0	.0	21.2		2.6	20.5	17.3	.6	.0	.0		41.0	97.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	9.8	7.3	.0	.0	.0	.0	.0	17.1
1-2	2.4	39.0	12.2	.0	.0	.0	.0	53.7
3-4	.0	4.9	12.2	.0	.0	.0	.0	17.1
5-6	.0	.0	7.3	2.4	.0	.0	.0	9.8
7	.0	.0	2.4	.0	.0	.0	.0	2.4
8-9	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	12.2	51.2	34.1	2.4	.0	.0	100.0	41

PERIOD: (OVER-ALL) 1950-1973

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	13.6	37.3	8.5	5.1	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	39	2
6-7	.0	3.4	5.1	1.7	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	4
8-9	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	3
10-11	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
MEAN	9.1	8.5	5.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	2
TOTAL	11	29	13	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59	2
PCT	18.6	49.2	22.0	6.8	3.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1913-1973  
(OVER-ALL) 1960-1973

MARCH

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OBS TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	4.8	10.6	.0	.0	.0	.0	.0	15.3	.0	15.3	3.2	.0	.0	.0	67.2
NE	.0	4.9	.0	.0	.0	.0	.0	4.9	.0	15.9	14.6	.0	.0	.0	59.8
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	31.3	.0	.0	.0	.0	68.8
SE	11.1	.0	.0	.0	.0	.0	.0	11.1	.0	27.8	.0	.0	.0	.0	72.2
S	22.0	.0	.0	.0	.0	.0	.0	22.0	.0	22.0	.0	.0	.0	.0	62.0
SW	8.9	8.1	.0	.0	.0	.0	.0	16.9	1.6	4.0	.0	.0	.0	.0	78.2
W	1.9	7.5	.0	.0	.0	.0	.0	9.3	5.6	.0	.0	.0	.0	.0	85.0
NW	7.1	6.6	.0	.0	.0	.0	.0	13.7	1.9	4.7	.9	.0	.0	.0	81.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.9	.0	.0	.0	.0	94.1
TOT PCT	5.8	6.2	.0	.0	.0	.0	.0	12.0	1.8	10.2	2.7	.0	.0	.0	75.6
TOT OBS	225														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OBS TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	2.0	8.2	.0	.0	.0	.0	.0	10.2	2.0	.0	2.0	.0	.0	.0	85.7
06009	4.7	4.7	3.1	.0	.0	.0	.0	12.5	1.4	1.6	1.6	.0	.0	.0	82.8
12015	6.2	3.1	.0	.0	.0	.0	.0	9.2	1.5	16.9	1.5	.0	.0	.0	72.3
18021	13.0	11.7	.0	.0	.0	.0	.0	24.7	1.3	19.5	3.9	.0	.0	.0	55.8
TOT PCT	7.1	7.1	.8	.0	.0	.0	.0	14.9	1.6	10.6	2.4	.0	.0	.0	72.5
TOT OBS	235														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	2.8	11.2	7.5	.0	.0	.0		16.5	7.2		17.7	20.0	10.4	14.0	15.9	40.0	23.0	17.4
NE	2.1	4.6	.3	.1	.0	.0		7.0	5.6		3.7	20.0	3.5	3.1	10.8	.0	10.0	8.1
E	1.6	1.6	.0	.1	.0	.0		3.3	4.7		.6	.0	5.7	2.2	5.5	10.0	2.0	1.7
SE	.6	1.9	.0	.0	.0	.0		2.6	3.4		2.2	.0	.7	5.1	3.8	10.0	2.2	2.3
S	1.9	2.3	.2	.0	.0	.0		4.4	4.9		2.2	.0	2.0	5.9	5.9	.0	6.4	4.7
SW	1.9	7.7	1.1	.0	.0	.0		10.7	6.7		14.3	20.0	10.7	12.5	8.5	20.0	10.0	8.1
W	2.7	13.1	1.4	.0	.0	.0		17.4	6.4		20.5	20.0	24.8	14.7	10.2	.0	16.1	16.9
NW	3.6	20.0	9.2	.0	.0	.0		28.8	7.3		29.8	20.0	35.4	31.6	23.3	20.0	21.2	33.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	9.4							9.4	.0		9.0	.0	6.7	8.8	16.1	.0	8.9	7.0
TOT OBS	164	386	67	1	0	0	618		6.1		89	5	135	68	118	5	112	86
TOT PCT	26.5	62.5	10.8	.2	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	7.7	8.5	.3	.0	.0		16.5	7.2	17.8	11.6	16.9	20.6	
NE	5.3	1.5	.2	.1	.0		7.0	5.6	4.5	4.1	10.4	9.2	
E	2.8	.5	.0	.1	.0		3.3	4.7	.5	4.6	5.7	1.9	
SE	1.9	.7	.0	.0	.0		2.6	3.4	2.1	2.2	4.1	2.3	
S	3.3	1.1	.0	.0	.0		4.4	4.9	2.1	3.3	5.7	5.7	
SW	5.9	4.5	.2	.0	.0		10.7	6.7	14.0	11.3	8.9	9.2	
W	11.3	5.6	.5	.0	.0		17.4	6.4	20.5	21.4	9.8	16.4	
NW	13.9	14.0	.9	.0	.0		28.8	7.3	29.3	34.1	23.2	26.6	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	9.4						9.4	.0	8.5	7.4	15.4	8.1	
TOT OBS	279	225	13	1	0	618		6.1	94	203	123	198	
TOT PCT	61.3	36.4	2.1	.2	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1913-1973  
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (CMF)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	8.5	20.2	56.4	14.9	.0	.0	.0	.0	6.8	100.0	94
06009	7.4	22.2	61.6	8.9	.0	.0	.0	.0	5.6	100.0	203
12015	15.4	17.9	60.2	6.5	.0	.0	.0	.0	5.0	100.0	12
18021	8.1	10.1	67.7	13.6	.5	.0	.0	.0	6.9	100.0	198
TOT	58	106	386	67	1	0	0	0	6.1		612
PCT	9.4	17.2	62.5	10.8	.2	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OASCD	TOTAL OBS	MEAN CLOUD COVER
N	4.0	5.3	6.1	6.1		5.2
NE	1.3	2.4	3.7	.5		4.7
E	.0	1.9	.0	.0		3.0
SE	.0	.0	2.1	.0		6.5
S	.0	2.1	1.3	.0		4.5
SW	1.1	1.1	7.2	5.3		6.5
W	.0	2.1	7.2	2.1		5.0
NW	1.1	5.3	10.6	8.2		5.5
VAR	.0	.0	.0	.0		.0
CALM	2.1	.0	8.5	1.1		5.0
TOT OBS	9	19	44	22	94	5.0
TOT PCT	9.6	20.2	46.8	23.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.8	1.1	3.7	.4	.0	.8	.0	.0	15.4	
.0	.0	.0	.0	2.7	.3	.0	.0	.0	.0	5.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.9	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	
.0	.0	.0	.8	.7	.0	.0	.0	.0	.0	2.7	
.0	.0	.0	2.4	2.1	2.4	.0	.3	.0	.0	7.4	
.0	.0	.0	1.1	.8	.8	.0	.8	.0	.0	8.0	
.0	.0	1.3	2.1	4.4	1.1	.0	.3	.0	.0	16.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	1.1	.0	1.1	.0	.0	.0	9.6	
0	0	2	7	13	6	1	2	0	0	63	94
.0	.0	2.1	7.4	13.8	5.4	1.1	2.1	.0	.0	67.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.0	.0	.0	.0	.0	.0	.0	.0
>5000	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
>3500	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
>2000	8.2	9.3	9.3	9.3	9.3	9.3	9.3	9.3
>1000	19.6	22.7	22.7	22.7	22.7	22.7	22.7	22.7
>600	23.7	28.9	29.9	29.9	29.9	29.9	29.9	29.9
>300	24.7	29.9	32.0	32.0	32.0	32.0	32.0	32.0
>150	24.7	29.9	32.0	32.0	32.0	32.0	32.0	32.0
>0	24.7	29.9	32.0	32.0	32.0	32.0	32.0	32.0
TOTAL	74	29	31	31	31	31	31	31

TOTAL NUMBER OF OBS: 97

PCT FREQ NH <5/8: 68.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

C	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
1.0	9.8	30.4	17.6	8.8	7.8	7.8	4.9	11.8	.0	102

PERIOD: (PRIMARY) 1913-1973  
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PLP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PLP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
<2	PLP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PLP	.6	.0	.0	.0	.0	.4	.0	.8	.0	.0	1.8	.6
	NO PCP	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.4	.4
	TOT %	.6	.4	.0	.0	.0	.4	.0	.8	.0	.0	2.2	1.0
5<10	PLP	2.2	.4	.0	.0	.9	1.8	.7	1.6	.0	.0	7.6	2.2
	NO PCP	4.0	3.8	2.0	.4	1.3	5.4	5.4	7.3	.0	2.2	33.8	4.0
	TOT %	6.2	4.0	2.0	.4	2.2	7.2	6.1	8.9	.0	2.2	41.3	6.2
10+	PLP	.4	.0	.0	.4	.2	.1	.4	.9	.0	.0	2.7	.4
	NO PCP	11.8	4.7	1.6	3.1	3.0	6.0	5.3	13.0	.0	5.3	53.8	12.2
	TOT %	12.2	4.7	1.6	3.6	3.3	6.1	5.8	13.9	.0	5.3	56.4	12.2
TOT OBS													
TOT PCT													
		21.0	9.1	3.6	4.0	5.6	13.8	11.9	23.6	.0	7.6	100.0	225

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	0-3	.0	.3	.0	.0	.0	.0	.0	.3	.0	.3	.8	.0
	4-10	.1	.0	.0	.0	.0	.3	.1	.3	.0	.0	.8	.1
	11-21	.2	.0	.0	.0	.0	.0	.0	.3	.0	.0	.5	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.3	.3	.0	.0	.0	.3	.1	.9	.0	.3	2.2	.3
5<10	0-3	1.2	.7	.3	.0	.5	.3	.3	.5	.0	1.4	5.5	1.2
	4-10	3.8	1.9	.7	.3	.8	3.5	3.6	4.5	.0	.0	19.1	3.8
	11-21	.4	.0	.0	.0	.0	1.0	.1	1.5	.0	.0	3.0	.4
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	5.3	2.6	1.2	.3	1.4	4.7	4.0	6.6	.0	1.4	27.6	5.3
10+	0-3	1.2	1.1	.7	.4	1.9	1.5	1.2	1.2	.0	7.7	16.9	1.2
	4-10	9.4	3.6	1.2	1.8	2.0	6.2	7.7	16.1	.0	.0	48.1	9.4
	11-21	1.2	.3	.0	.0	.3	.4	.7	2.0	.0	.0	4.9	1.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	11.9	5.1	1.9	2.2	4.2	8.1	9.6	19.3	.0	7.7	69.9	11.9
TOT OBS													
TOT PCT													
		17.7	7.9	3.1	2.5	5.6	13.1	13.7	27.0	.0	9.3	100.0	366



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PERIOD: (PRIMARY) 1913-1973  
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000	180	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	3.4	10.3	10.3	10.3	3.4	3.4	.0	.0	41.4	58.6	29
06009	.0	.0	.0	15.0	15.0	5.0	.0	5.0	.0	.0	40.0	60.0	20
12015	.0	.0	.0	.0	14.3	7.1	.0	.9	.0	.0	21.4	78.6	28
18021	.0	.0	4.3	4.3	13.0	.0	.0	.0	.0	.0	21.7	78.3	23
TOT	0	0	2	7	13	6	1	2	0	0	31	69	100
PCT	.0	.0	2.0	7.0	13.0	6.0	1.0	2.0	.0	.0	31.0	69.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	6.1	19.7	74.2	66
06009	.0	.0	.0	.0	33.6	66.4	107
12015	.0	.0	.0	1.1	27.7	71.3	94
18021	.0	.8	.0	2.3	35.2	61.7	128
TOT	0	1	0	8	120	266	395
PCT	.0	.3	.0	2.0	30.4	67.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	3.4	17.2	27.6	55.2	29
06009	.0	.0	15.8	26.3	57.9	19
12015	.0	.0	.0	22.2	77.8	27
18021	.0	4.5	9.1	13.6	77.3	22
TOT	0	2	10	22	65	97
PCT	.0	2.1	10.3	22.7	67.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.4	.0	.0	.0	1	.6
85/89	.0	.0	.0	.0	1.2	1.8	1.8	1.2	10	6.1
80/84	.0	.0	.0	.0	.0	20.6	53.9	10.3	140	84.8
75/79	.0	.0	.0	.0	.0	.6	1.8	6.1	14	8.5
TOTAL	0	0	0	0	3	38	95	29	165	100.0
PCT	.0	.0	.0	.0	1.8	23.0	57.6	17.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0
85/89	1.2	.0	.6	.0	.7	.3	.5	.8	.0	2.4
80/84	20.2	8.2	2.9	2.7	5.9	9.2	8.5	20.6	.0	6.7
75/79	.8	.0	.0	.0	.5	2.7	2.9	1.7	.0	.0
TOTAL	22.1	8.8	3.5	2.7	6.4	12.6	11.8	23.0	.0	5.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	86	84	81	78	76	76	81.1	97
06009	92	90	88	83	79	77	76	83.2	214
12015	86	85	85	82	79	77	77	81.9	126
18021	84	83	83	81	77	76	76	80.7	208
TOT	92	89	86	82	78	76	76	81.8	645

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	23.5	61.8	14.7	84	34
06009	.0	.0	10.0	30.0	50.0	10.0	81	50
12015	.0	.0	.0	29.2	50.0	20.8	84	48
18021	.0	.0	.0	10.0	65.0	25.0	87	60
TOT	0	0	0	43	109	35	84	192

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TABLE 17

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PCT FRQC OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TEMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
5	.0	.0	.5	.5	.5	3	.0	1.6
4	.0	.0	1.0	.5	.0	3	.0	1.6
3	.0	.0	1.6	.5	.0	4	.0	2.1
2	.0	.0	2.6	1.0	.0	7	.0	3.6
1	.0	.0	7.3	2.6	.0	19	.5	9.4
0	.0	2.1	10.4	2.6	.0	29	1.6	13.5
-1	.0	3.1	13.0	1.6	.0	34	.0	17.7
-2	.0	3.6	14.6	.0	.0	35	.5	17.7
-3	.0	5.2	8.3	.0	.0	26	.5	13.0
-4	.5	5.2	4.2	.0	.0	19	.0	9.9
-5	.5	3.1	.5	.0	.0	8	.0	4.2
-6	.0	1.0	1.0	.0	.0	4	.0	2.1
-7/-8	.0	.0	.5	.0	.0	1	.0	.5
TOTAL	2	45	126	18	1	192	6	186
PCT	1.0	23.4	65.6	9.4	.5	100.0	3.1	96.9

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREC OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	2.9	7.7	.0	.0	.0	.0	10.6	1.0	1.9	.0	.0	.0	.0	2.9
1-2	.0	9.1	1.4	.0	.0	.0	10.6	.0	.5	.0	.0	.0	.0	.5
3-4	.0	1.4	4.8	.0	.0	.0	6.3	.0	.5	.0	.0	.0	.0	1.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.9	18.3	6.3	.0	.0	.0	27.4	1.0	2.9	.5	.0	.0	.0	4.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.9	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.9	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0

PERIOD: (OVER-ALL) 1963-1973

MARCH

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.9E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.0	.0	.0	.0	.0	.0	1.9	2.4	.0	.0	.0	.0	.0	4.3
1-2	.0	1.4	.0	.0	.0	.0	1.4	.0	10.1	.0	.0	.0	.0	.0	10.1
3-4	.0	.0	.0	.0	.0	.0	.0	.0	4.8	.0	.0	.0	.0	.0	4.8
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.4	.0	.0	.0	.0	1.4	1.9	17.3	.0	.0	.0	.0	.0	19.2

HGT	W							NW							TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.4	.0	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.9	.0	.0	.0	.0	1.9	1.9	15.4	.5	.0	.0	.0	.0	17.8
3-4	.0	4.8	.0	.0	.0	.0	4.8	.0	1.9	4.3	.0	.0	.0	.0	6.3
5-6	.0	1.9	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	10.1	.0	.0	.0	.0	10.1	1.9	17.3	4.8	.0	.0	.0	24.0	88.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	7-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	18.9	13.2	.0	.0	.0	.0	32.1	
1-2	1.9	39.6	1.9	.0	.0	.0	43.4	
3-4	.0	13.2	9.4	.0	.0	.0	22.6	
5-6	.0	1.9	.0	.0	.0	.0	1.9	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	20.8	67.9	11.3	.0	.0	.0	100.0	53

PERIOD: (OVER-ALL) 1950-1973

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	16.5	31.6	13.2	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	51
6-7	.0	1.3	7.6	2.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
INDST	17.7	5.1	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19
TOTAL	27	30	19	2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	79
PCT	34.2	38.0	24.1	3.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1888-1971  
(OVER-ALL) 1857-1971

APRIL

AREA 0004 NORTH-WEST JAVA SEA  
3.05 106.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION																
WIND DIR	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	MAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG PCPN	FOG WD PCPN	SMOKE HAZE	SPRAY BLWG	DUST SNOW	NO SIG WEA
N	.0	7.7	.0	.0	.0	.0	.0	7.7	.0	7.7	15.4	.0	.0	.0	.0	69.2
NE	4.8	4.8	4.8	.0	.0	.0	.0	14.3	.0	14.3	.0	.0	.0	.0	.0	71.4
E	4.3	4.3	.0	.0	.0	.0	.0	8.7	3.3	7.6	.0	.0	.0	.0	.0	80.4
SE	.0	5.0	.0	.0	.0	.0	3.3	8.3	.8	4.2	.0	.0	.0	.0	.0	86.7
S	3.6	5.4	.0	.0	.0	.0	.0	9.0	.0	3.6	.0	.0	.0	.0	.0	87.4
SW	.0	.0	.0	.0	.0	.0	.0	.0	1.7	13.8	3.4	.0	.0	.0	.0	81.0
W	.0	5.7	.0	.0	.0	.0	.0	5.7	.0	3.8	.0	.0	.0	.0	.0	84.9
NW	15.4	3.8	.0	.0	.0	.0	.0	19.2	15.4	.0	.0	.0	.0	.0	.0	65.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.0	.0	.0	.0	.0	.0	90.0
TOT PCT	2.5	4.4	.6	.0	.0	.0	.6	8.2	1.9	6.9	1.9	.0	.0	.0	.0	81.1
TOT OBS:	159															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR																
HOUR (GMT)	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	MAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG PCPN	FOG WD PCPN	SMOKE HAZE	SPRAY BLWG	DUST SNOW	NO SIG WEA
00003	2.8	5.6	.0	.0	.0	.0	.0	8.3	5.6	.0	.0	.0	.0	.0	.0	86.1
06009	4.3	4.3	.0	.0	.0	.0	2.2	10.9	4.3	4.3	.0	.0	.0	.0	.0	80.4
12015	.0	2.1	2.1	.0	.0	.0	.0	4.3	.0	6.4	2.1	.0	.0	.0	.0	87.2
18021	3.7	9.3	.0	.0	.0	.0	.0	13.0	.0	14.8	5.6	.0	.0	.0	.0	66.7
TOT PCT	2.7	5.5	.5	.0	.0	.0	.5	9.3	2.2	7.1	2.2	.0	.0	.0	.0	79.2
TOT OBS:	183															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR																	
WIND DIR	WIND SPEED (KNOTS)						TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+				00	03	06	12	15	18	21	
N	1.1	3.0	.9	.0	.0	.0	5.1	7.2	8.6	.0	6.5	3.3	4.4	.0	4.0	4.2	
NE	1.3	5.9	.9	.0	.0	.0	8.0	6.9	7.1	11.1	7.3	3.3	7.7	10.0	12.6	8.5	
E	4.5	10.8	1.6	.2	.0	.0	17.1	6.2	10.7	16.7	16.3	18.3	17.0	20.0	17.5	23.2	
SE	2.7	12.6	1.4	.1	.0	.0	16.9	6.6	14.3	22.2	13.7	19.2	23.1	.0	19.3	14.1	
S	1.9	7.1	1.8	.1	.0	.0	10.8	7.1	10.0	5.6	8.3	12.5	12.1	30.0	12.6	9.2	
SW	2.9	7.2	1.8	.2	.0	.0	12.1	7.0	11.1	.0	13.3	15.8	13.2	20.0	9.2	10.6	
W	1.1	7.0	1.0	.2	.0	.0	9.3	7.8	12.1	25.0	11.5	8.3	4.1	7.5	7.5	10.6	
NW	1.5	6.2	.9	.0	.0	.0	8.6	6.8	14.6	8.3	11.5	2.4	3.0	2.5	6.9	12.7	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	11.9						11.9	.0	11.4	11.1	11.5	16.7	15.4	10.0	10.3	7.0	
TOT OBS	154	315	35	4	0	0	528		70	9	130	60	91	10	87	71	
TOT PCT	29.2	59.7	10.4	.8	.0	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)								TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+							00	06	12	18
N	2.4	2.7	.0	.0	.0			5.1	7.2		7.6	5.5	4.0	4.1	
NE	4.5	3.1	.4	.0	.0			8.0	6.9		7.6	6.1	7.9	10.8	
E	11.2	5.4	.6	.0	.0			17.1	6.2		11.4	17.0	17.3	20.1	
SE	10.2	6.1	.6	.0	.0			16.9	6.6		15.2	15.4	20.8	16.9	
S	6.1	4.5	.3	.0	.0			10.8	7.1		9.5	9.6	13.9	11.1	
SW	6.5	5.4	.3	.0	.0			12.1	7.0		9.8	14.1	13.9	9.8	
W	4.2	4.5	.6	.0	.0			9.3	7.8		13.6	10.5	4.5	8.9	
NW	4.9	3.3	.4	.0	.0			8.6	6.8		13.9	8.7	3.0	9.3	
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0	
CALM	11.9							11.9	.0		11.4	13.2	14.9	8.9	
TOT OBS	327	185	16	0	0	528			6.0		79	190	101	158	
TOT PCT	61.9	35.0	3.0	.0	.0			100.0			100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1888-1971  
(OVER-ALL) 1857-1971

APRIL

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				40+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	11.4	16.5	62.0	8.9	1.3	.0	.0	.0	3.9	100.0	79
06009	13.2	17.9	57.4	11.1	.5	.0	.0	.0	6.1	100.0	190
12015	14.9	16.8	57.4	10.9	.0	.0	.0	.0	5.6	100.0	101
18021	8.9	17.1	62.7	10.1	1.3	.0	.0	.0	6.3	100.0	158
TOT	63	91	315	55	4	.0	.0	.0	6.0		528
PCT	11.9	17.2	59.7	10.4	.8	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	C-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	2.7	1.4		6.5
NE	1.4	6.8	2.7	1.4		4.1
E	7.1	1.4	6.4	1.4		4.2
SE	6.4	1.4	9.1	.0		4.0
S	.0	3.7	4.7	6.8		6.1
SW	.0	3.0	5.4	3.0		5.3
W	2.0	.0	5.1	3.7		5.8
NW	2.0	1.4	1.7	.0		3.3
VAR	.0	.0	.0	.0		.0
CALM	4.1	.0	4.1	13	74	3.8
TOT OBS	17	13	31			4.8
TOT PCT	23.0	17.6	41.9	17.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NM >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	2.7	.0	.0	.0	.0	.0	1.4	
.0	.0	.0	1.4	2.7	.0	.0	.0	.0	.0	8.1	
.0	.0	.0	1.4	2.7	.0	.0	.0	.0	.0	12.2	
.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	16.6	
.0	.0	.0	.0	4.1	1.4	1.0	.0	.0	1.4	7.4	
.0	.0	.0	1.4	3.0	1.4	.0	.0	.0	.0	5.7	
.0	.0	1.4	.0	4.7	.0	.0	.0	.0	.0	4.7	
.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	4.7	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	2.7	.0	.0	.0	.0	.0	5.4	
.0	.0	1	3	17	2	1	0	0	1	49	74
.0	.0	1.4	4.1	23.0	2.7	1.4	.0	.0	1.4	66.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
>5000	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
>3500	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
>2000	5.3	6.6	6.6	6.6	6.6	6.6	6.6	6.6
>1000	23.7	27.6	28.9	28.9	28.9	28.9	28.9	28.9
>600	26.3	31.6	32.9	32.9	32.9	32.9	32.9	32.9
>300	27.6	32.9	34.2	34.2	34.2	34.2	34.2	34.2
>150	27.6	32.9	34.2	34.2	34.2	34.2	34.2	34.2
>0	27.6	32.9	34.2	34.2	34.2	34.2	34.2	34.2
TOTAL	21	25	26	26	26	26	26	26

TOTAL NUMBER OF OBS: 74

PCT FREQ NH <5/8: 65.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
2.5	12.7	27.8	11.4	11.4	8.9	9.1	5.1	15.2	.0	79

PERIOD: (PRIMARY) 1888-1971  
(OVER-ALL) 1857-1971

APRIL

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	.0	.0	.5	.2	.0	.0	.0	.6	
	NO PCP	.0	.6	.0	.0	.0	.2	.5	.0	.0	.0	1.3	
	TOT %	.0	.6	.0	.0	.0	.2	.9	.2	.0	.0	1.9	
5<10	PCP	.0	.0	1.3	1.6	1.6	.0	.0	.6	.0	.0	5.0	
	NO PCP	4.1	4.4	2.2	6.3	6.6	3.5	1.9	.6	.0	.0	29.6	
	TOT %	4.1	4.4	3.5	7.9	8.2	3.5	1.9	1.3	.0	.0	34.6	
10+	PCP	.4	1.2	.0	.0	.0	.0	.0	.0	.0	.0	2.5	
	NO PCP	3.5	6.3	11.0	11.0	9.3	5.5	5.5	2.7	.0	6.3	61.0	
	TOT %	4.1	8.2	11.0	11.0	9.3	5.5	5.5	2.7	.0	6.3	63.5	
TOT OBS													159
TOT PCT													8.2 13.2 14.5 18.9 17.5 9.1 8.3 4.1 .0 6.3 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4	.4
	4-10	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4	.4
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.8	.0	.0	.0	.0	.8	.8
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.4	.4
	4-10	.0	.4	.0	.0	.0	.1	.6	.1	.0	.0	1.1	1.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.4	.0	.0	.0	.1	.6	.1	.0	.4	1.5	1.5
5<10	0-3	.4	.0	.0	.4	.9	.2	.2	.2	.0	.4	2.7	2.7
	4-10	2.1	2.3	1.7	4.5	2.7	1.9	.0	.9	.0	.0	16.7	16.7
	11-21	.4	.4	.8	.2	1.3	.0	.4	.0	.0	.0	3.4	3.4
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	2.8	2.7	2.5	5.1	4.9	2.1	1.1	1.1	.0	.4	22.7	22.7
10+	0-3	1.1	1.7	3.2	1.5	1.3	2.7	.9	1.1	.0	11.0	24.6	24.6
	4-10	1.9	3.6	8.0	10.6	7.9	4.6	4.6	3.3	.0	.0	44.7	44.7
	11-21	.0	.8	.4	1.7	.8	1.7	.0	.4	.0	.0	5.7	5.7
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	3.0	6.3	11.6	13.8	9.9	9.0	5.6	4.8	.0	11.0	75.0	75.0
TOT OBS													264
TOT PCT													5.9 9.3 14.0 18.9 14.9 11.9 7.3 6.1 .0 11.7 100.0

APRIL

PERIOD: (PRIMARY) 1888-1971  
(UVER-ALL) 1857-1971AREA 0004 NORTHWEST JAVA SEA  
3.65 106.0E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 249	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	.0	41.2	.0	.0	.0	.0	.0	41.2	58.8	17
06009	.0	.0	.0	4.8	19.0	4.8	4.8	.0	.0	.0	33.3	66.7	21
12015	.0	.0	.0	4.3	13.0	4.3	4.3	.0	.0	.0	26.1	73.9	23
18021	.0	.0	5.9	5.9	17.6	.0	.0	.0	.0	5.9	35.3	64.7	17
TOT	0	0	1	3	17	2	2	0	0	1	26	52	78
PCT	.0	.0	1.3	3.8	21.6	2.6	2.6	.0	.0	1.3	33.3	66.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	2.2	.0	4.3	21.7	71.7	46
06009	.0	.0	.0	.0	26.7	73.3	75
12015	.0	.0	.0	2.7	21.6	75.7	74
18021	.0	1.1	.0	.0	31.2	67.7	93
TOT	0	2	0	4	75	207	288
PCT	.0	.7	.0	1.4	26.0	71.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	6.3	37.5	56.3	16
06009	.0	.0	4.8	28.6	66.7	21
12015	.0	.0	6.7	21.7	69.6	23
18021	.0	6.3	12.5	25.0	62.5	16
TOT	0	1	6	21	49	76
PCT	.0	1.3	7.9	27.6	64.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.9	.9	.0	.0	.0	2	1.7
85/89	.0	.0	.0	.0	2.6	7.8	4.3	.9	18	15.7
80/84	.0	.0	.0	.0	.9	28.7	42.6	7.8	92	80.0
75/79	.0	.0	.0	.0	.0	.0	2.6	.0	3	2.6
TOTAL	0	0	0	1	5	42	57	16	115	100.0
PCT	.0	.0	.0	.9	4.3	36.5	49.6	5.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.9	.0	.0	.0	.9	.0	.0	.0	.0	.0
2.2	1.3	1.7	3.9	.4	1.7	.4	1.3	.0	2.6
6.5	11.3	9.6	18.3	14.3	6.1	6.7	2.8	.0	4.3
.0	.9	.9	.0	.0	.2	.7	.0	.0	.0
9.6	13.5	12.2	22.2	15.7	8.0	7.8	4.1	.0	7.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	92	91	87	83	79	77	77	82.9	80
06009	94	93	90	84	80	78	77	84.5	196
12015	90	88	86	83	80	78	78	83.1	104
18021	87	86	84	82	78	76	74	82.1	159
TOT	94	91	88	83	79	77	74	83.3	539

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	57.1	33.3	9.5	81	21
06009	.0	2.8	13.9	30.6	47.2	5.6	78	36
12015	.0	.0	2.8	44.4	47.2	5.6	80	36
18021	.0	.0	2.4	19.5	65.9	12.2	83	41
TOT	0	1	7	47	68	11	81	134

PERIOD: (PRIMARY) 1888-1971  
(OVER-ALL) 1857-1971

APRIL

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.6E

TABLE 17

PCT FRPO OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	77 80	81 84	85 88	89 92	>92	TOT	N FOG	NO FOG
7/8	.0	.0	.0	.7	.0	1	.0	.7
6	.0	.0	.7	2.0	.0	4	.0	2.6
4	.0	.0	2.0	.7	.0	4	.0	2.6
3	.0	.0	1.3	.0	.0	2	.0	1.3
2	.0	1.3	3.3	.7	.7	9	.0	6.0
1	.0	3.3	2.0	.0	.0	8	.0	5.3
0	.0	13.2	4.0	.0	.0	26	.7	16.6
-1	.0	13.2	2.0	.0	.0	23	.0	15.2
-2	.7	17.9	.0	.0	.0	28	.7	17.9
-3	2.6	6.6	.0	.0	.0	14	.7	8.6
-4	4.0	7.9	.0	.0	.0	18	.7	11.3
-5	.0	4.0	.0	.0	.0	6	.0	4.0
-6	.7	2.6	.0	.0	.0	5	.0	3.3
-7/-8	1.3	.7	.0	.0	.0	3	.0	2.0
TOTAL	14	107	23	6	1	151	4	147
PCT	9.5	70.9	15.2	4.0	.7	100.0	2.6	97.4

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	2.3	.0	.0	.0	.0	2.3
1-2	.0	2.3	.0	.0	.0	.0	2.3	.0	9.1	2.3	.0	.0	.0	11.4
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.3	.0	.0	.0	.0	2.3	.0	11.4	2.3	.0	.0	.0	13.6

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	2.3	.0	.0	.0	.0	2.3	.0	2.3	.0	.0	.0	.0	2.3
1-2	.0	8.5	2.3	.0	.0	.0	10.8	2.3	10.2	2.3	.0	.0	.0	14.8
3-4	.0	4.5	.0	.0	.0	.0	4.5	.0	2.3	.0	.0	.0	.0	2.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	13.3	2.3	.0	.0	.0	17.6	2.3	14.8	2.3	.0	.0	.0	19.3



PERIOD: (OVER-ALL) 1963-1971

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AREA 0004 NORTHWEST JAVA SEA  
3.65 106.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	2.3	.0	.0	.0	.0	.0
1-2	2.3	8.5	.0	.0	.0	.0	10.8	2.3	2.3	2.3	.0	.0	.0	6.8
3-4	.0	2.3	.0	.0	.0	.0	2.3	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3	.0	.0	.0	2.3
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.3	10.8	.0	.0	.0	.0	13.1	2.3	4.5	4.5	.0	.0	.0	11.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	3.7	.0	.0	.0	.0	5.7	.0	1.1	.0	.0	.0	.0	1.1	
1-2	.0	4.0	.0	.0	.0	.0	4.0	.0	2.8	2.3	.0	.0	.0	5.1	
3-4	.0	.0	2.3	.0	.0	.0	2.3	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	9.7	2.3	.0	.0	.0	11.9	.0	4.0	2.3	.0	.0	.0	6.3	95.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT NBS
<1	6.5	15.2	.0	.0	.0	.0	21.7	
1-2	8.7	45.7	10.9	.0	.0	.0	65.2	
3-4	.0	8.7	2.2	.0	.0	.0	10.9	
5-6	.0	.0	2.2	.0	.0	.0	2.2	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	15.2	69.6	15.2	.0	.0	.0	100.0	46

PERIOD: (OVER-ALL) 1950-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
<6	21.5	47.7	9.2	3.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	53	2
6-7	.0	1.5	1.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	3
8-9	.0	1.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	9.2	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	0
TOTAL	20	33	9	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	2
PCT	30.8	50.8	13.8	4.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1907-1972  
(OVER-ALL) 1858-1972

MAY

AREA 0004 NORTHWEST JAVA SEA  
3.05 106.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 05 TIME	PCPN PAST HOUR	THDR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
N	40.0	.0	.0	.0	.0	.0	.0	40.0	.0	33.3	.0	.0	.0	.0	40.0
NE	2.4	2.4	.0	.0	.0	.0	.0	4.8	.0	2.4	.0	.0	.0	.0	95.2
E	2.7	5.9	.0	.0	.0	.0	.0	8.7	3.2	6.4	.0	.0	.0	.0	83.6
SE	1.4	.7	.0	.0	.0	.0	.0	2.2	3.6	10.1	.0	.0	.0	.0	84.1
S	2.9	.0	3.8	.0	.0	.0	.0	6.7	.0	7.7	.0	.0	.0	.0	85.6
SW	6.1	24.5	.0	.0	.0	.0	.0	30.6	14.3	.0	.0	.0	.0	.0	53.1
W	18.5	.0	.0	.0	.0	.0	.0	38.5	.0	15.4	.0	.0	.0	.0	46.2
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.1	.0	.0	.0	.0	88.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.3	.0	.0	.0	.0	91.7
TOT PCT	4.6	4.0	.6	.0	.0	.0	.0	9.2	2.9	7.5	.0	.0	.0	.0	81.5
TOT OBS:	173														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 05 TIME	PCPN PAST HOUR	THDR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
00003	7.3	4.9	.0	.0	.0	.0	.0	12.2	2.4	.0	.0	.0	.0	.0	85.4
06009	5.7	5.7	.0	.0	.0	.0	.0	11.4	5.7	.0	.0	.0	.0	.0	82.9
12015	4.9	2.4	2.4	.0	.0	.0	.0	9.6	2.4	12.2	.0	.0	.0	.0	78.0
18021	6.3	3.2	.0	.0	.0	.0	.0	9.5	1.6	12.7	.0	.0	.0	.0	77.8
TOT PCT TOT OBS:	6.1 180	3.9	.6	.0	.0	.0	.0	10.6	2.8	7.2	.0	.0	.0	.0	80.6

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.7	2.3	.2	.0	.0	.0		3.1	6.1		4.3	.0	3.1	2.8	2.4	8.9	2.7	2.6
NE	2.0	6.7	.8	.0	.0	.0		9.6	5.8		11.4	.0	5.0	3.7	5.4	10.7	16.9	15.6
E	3.0	19.7	3.3	.0	.0	.0		26.0	7.2		26.2	45.0	25.2	28.7	27.7	25.0	23.9	24.7
SE	2.1	18.2	4.5	.0	.0	.0		24.8	7.7		18.5	25.0	27.7	33.3	29.2	25.0	22.8	18.2
S	2.1	8.4	1.1	.0	.0	.0		11.6	6.4		16.0	30.0	13.3	14.8	10.2	17.9	6.2	7.8
SW	1.9	4.4	1.4	.0	.0	.0		7.7	6.6		6.8	.0	12.3	8.3	4.5	3.6	6.5	6.5
W	.7	2.3	.7	.0	.0	.0		3.7	7.4		5.6	.0	3.8	.0	2.4	7.1	3.2	5.8
NW	.9	1.6	.1	.2	.0	.0		2.8	7.1		3.7	.0	1.9	.9	2.4	1.8	4.8	3.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	10.6							10.6	.0		7.4	.0	7.7	7.4	15.7	.0	12.9	15.6
TOT OBS	129	342	65	1	0	0	537		6.3		81	5	130	54	83	14	93	77
TOT PCT	24.0	63.7	12.1	.2	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	1.9	1.2	.0	.0	.0		3.1	6.1	4.1	3.0	3.4	2.6		
NE	6.8	2.7	.0	.0	.0		9.6	5.8	10.8	4.6	6.2	18.3		
E	12.0	13.7	.3	.0	.0		26.0	7.2	27.3	26.2	27.3	24.3		
SE	11.5	12.5	.8	.0	.0		24.8	7.7	18.9	29.3	28.6	20.7		
S	6.9	4.7	.0	.0	.0		11.6	6.4	16.9	13.7	11.3	6.9		
SW	4.8	2.7	.2	.0	.0		7.7	6.6	6.4	11.1	4.4	6.5		
W	1.7	2.0	.0	.0	.0		3.7	7.3	5.2	2.7	3.1	4.4		
NW	1.7	.9	.0	.2	.0		2.8	7.1	3.5	1.6	2.3	4.1		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	10.6						10.6	.0	7.0	7.6	13.4	14.1		
TOT OBS	311	218	7	1	0	537		6.3	86	184	97	170		
TOT PCT	57.9	40.6	1.3	.2	.0		100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1907-1972  
(OVER-ALL) 1858-1972

4AV

AREA 0004 NORTHWEST JAVA SEA  
3.6S 106.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	7.0	16.3	65.1	10.9	1.2	.0	.0	.0	6.7	100.0	86
06009	7.6	13.6	66.3	12.5	.0	.0	.0	.0	6.4	100.0	184
12015	13.4	9.3	62.9	14.4	.0	.0	.0	.0	6.1	100.0	97
18021	14.1	14.1	60.6	11.2	.0	.0	.0	.0	6.0	100.0	170
TOT	57	57	342	65	1	0	0	0	6.3		537
PCT	10.6	13.4	63.7	12.1	.2	.0	.0	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.0	1.0	.0	1.3		5.8
NE	.7	2.0	4.3	.3		5.1
E	6.7	8.7	10.0	3.3		4.4
SE	6.0	8.7	12.7	1.7		4.7
S	1.3	6.0	8.3	.0		4.8
SW	.0	2.7	4.7	2.7		6.1
W	.0	.0	.0	1.3		8.0
NW	.0	.3	.0	.0		3.0
VAR	.0	.0	.0	.0		.0
CALM	1.3	1.3	1.3	1.3		5.0
TOT OBS	12	23	31	9	75	4.9
TOT PCT	16.0	30.7	41.3	12.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	1.0	
.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	6.7	
.0	.0	.0	1.3	4.3	.0	.0	.0	.0	.0	23.0	
.0	.0	.0	1.3	4.3	1.3	.0	.0	.0	.0	22.0	
.0	.0	.0	1.0	2.7	1.0	.0	.0	.0	.0	11.0	
.0	.0	.0	.3	2.7	.3	.0	.0	.0	.0	6.7	
.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	2.7	.0	.0	.0	.0	.0	.0	2.7	
0	0	5	13	2	0	0	0	0	0	55	75
.0	.0	.0	6.7	17.3	2.7	.0	.0	.0	.0	73.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>9000	.0	.0	.0	.0	.0	.0	.0	.0
>5000	.0	.0	.0	.0	.0	.0	.0	.0
>3500	.0	.0	.0	.0	.0	.0	.0	.0
>2000	1.3	2.6	2.6	2.6	2.6	2.6	2.6	2.6
>1000	13.2	17.1	19.7	19.7	19.7	19.7	19.7	19.7
>600	18.4	23.0	27.6	27.6	27.6	27.6	27.6	27.6
>300	18.4	23.0	27.6	27.6	27.6	27.6	27.6	27.6
>150	18.4	23.0	27.6	27.6	27.6	27.6	27.6	27.6
>0	18.4	23.0	27.6	27.6	27.6	27.6	27.6	27.6
TOTAL	14	19	21	21	21	21	21	21

TOTAL NUMBER OF OBS: 76

PCT FREQ NH <5/8: 72.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
3.3	8.9	30.0	17.8	10.0	8.9	4.6	8.9	6.7	.0	70

PERIOD: (PRIMARY) 1907-1972  
(OVER-ALL) 1858-1972

MAY

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.3E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NN PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NN PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NN PCP	.0	.6	.0	.6	.0	.0	.0	.0	.0	.0	.0	1.2
	TOT %	.0	.6	.0	.6	.0	.0	.0	.0	.0	.0	.0	1.2
2<5	PCP	.6	.0	.0	.0	.0	.0	1.2	.0	.0	.0	.0	1.7
	NN PCP	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6
	TOT %	.6	.6	.0	.0	.0	.0	1.2	.0	.0	.0	.0	2.3
5<10	PCP	.3	.6	2.7	.4	1.0	1.6	.3	.0	.0	.0	.0	6.9
	NN PCP	.7	4.0	7.5	4.0	5.5	1.2	.6	.1	.0	2.9	.0	26.6
	TOT %	1.0	4.6	10.3	4.5	6.5	2.7	.9	.1	.0	2.9	.0	33.5
10+	PCP	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.6
	NN PCP	.6	6.4	21.4	14.9	8.5	3.8	1.7	1.2	.0	4.0	.0	62.4
	TOT %	.6	6.4	21.4	14.9	8.5	4.4	1.7	1.2	.0	4.0	.0	63.0
TOT OBS													
TOT PCT		2.2	12.1	31.6	19.9	15.0	7.1	7.8	1.3	.0	6.9	100.0	173

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SFD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.3
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.3
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.3	.2	.5	.0	.0	.0	.0	.0	.0	.0	1.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.3	.2	.5	.0	.0	.0	.0	.0	.0	.0	1.0
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7
	11-21	.0	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.7
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.3	.3	.0	.0	.0	.0	.7	.0	.0	.0	.0	1.4
5<10	0-3	.0	.2	.3	.3	.8	.2	.2	.0	.0	1.7	.0	3.7
	4-10	.6	2.0	6.0	3.1	3.2	.7	.8	.1	.0	.0	.0	16.6
	11-21	.0	.5	.5	.0	.4	.9	.0	.0	.0	.0	.0	2.4
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.6	2.7	6.9	3.5	4.5	1.8	1.0	.1	.0	1.7	.0	22.7
10+	0-3	.5	1.7	3.7	1.4	2.2	1.1	.3	.5	.0	7.5	.0	19.0
	4-10	.7	5.1	16.0	16.0	5.7	1.9	.8	.8	.0	.0	.0	47.1
	11-21	.0	.5	2.5	4.2	.5	.8	.0	.0	.0	.0	.0	8.5
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	1.2	7.3	22.2	21.6	8.4	3.9	1.2	1.4	.0	7.5	.0	74.6
TOT OBS													
TOT PCT		2.1	10.7	29.2	25.9	12.9	5.7	2.9	1.4	.0	9.2	100.0	295

PERIOD: (PRIMARY) 1967-1972  
(OVER-ALL) 1958-1972

MAY

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NM >4/8 AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	4.0	20.0	.0	.0	.0	.0	.0	24.0	76.0	15
06009	.0	.0	.0	6.7	6.7	13.3	.0	.0	.0	.0	26.7	73.3	15
12015	.0	.0	.0	11.1	16.7	.0	.0	.0	.0	.0	27.8	72.2	18
18021	.0	.0	.0	7.7	15.4	.0	.0	.0	.0	.0	23.1	76.9	26
TOT	0	0	0	6	13	2	0	0	0	0	21	63	84
PCT	.0	.0	.0	7.1	15.5	2.4	.0	.0	.0	.0	25.0	75.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2-1	1-2	2-3	3-10	10+	TOTAL OBS
00003	.0	.0	1.9	5.7	20.6	71.7	53
06009	1.5	.0	.0	.0	26.2	72.3	65
12015	.0	.0	1.4	1.4	20.5	76.7	73
18021	.0	.0	.9	.9	25.2	73.0	111
TOT	1	0	3	5	71	222	302
PCT	.3	.0	1.0	1.7	23.5	73.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET) NM >4/8 BY HOUR

HOUR (GMT)	<150 <500	<600 41	<1000 45	1000+ ANDS+	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	13.6	13.6	72.7	23
06009	.0	.0	6.7	20.0	73.3	15
12015	.0	.0	12.3	18.8	68.8	16
18021	.0	.0	6.7	17.4	75.9	23
TOT	0	0	8	13	55	76
PCT	.0	.0	10.5	17.1	72.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40- 9	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.0	.8	.0	.0	1	.8
85/89	.0	.0	.0	.0	2.9	9.2	5.4	.0	22	16.9
80/84	.0	.0	.0	.0	2.3	20.0	33.6	9.2	98	75.4
75/79	.0	.0	.0	.0	.0	.0	1.5	5.4	9	6.9
TOTAL	0	0	0	0	5	52	52	19	130	100.0
PCT	.0	.0	.0	.0	4.6	40.0	40.8	14.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0
85/89	.4	1.2	7.5	1.9	5.5	.2	.0	.0	.0	2.3
80/84	1.7	11.2	21.9	15.4	9.2	5.0	4.6	1.7	.0	4.0
75/79	.4	.8	1.0	2.5	1.5	.8	.0	.0	.0	.0
TOTAL	2.5	13.8	30.4	19.8	14.2	6.0	4.6	1.7	.0	6.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99C	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	80	75	85	83	79	77	77	82.9	87
06009	90	72	90	84	79	77	77	84.7	178
12015	85	65	85	83	80	78	78	82.9	93
18021	90	88	84	83	80	77	75	82.3	167
TOT	95	90	87	83	79	77	75	83.3	525

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	2.8	41.7	44.4	11.1	81	36
06009	.0	.0	12.5	41.7	37.5	8.3	79	24
12015	.0	.0	3.7	44.4	40.7	11.1	80	27
18021	.0	.0	2.0	36.0	40.0	22.0	83	50
TOT	0	0	6	55	56	20	81	137

PERIOD: (PRIMARY) 1907-1972  
(OVER-ALL) 1854-1972

MAY

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3.65 106.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TEMP DIF	77 80	81 84	85 88	89 92	TOT	F FOG	WD FOG
7/8	.0	.0	.0	.7	1	.0	.7
4	.0	.7	.7	.0	2	.0	1.3
3	.0	.7	.7	.0	2	.0	1.3
2	.0	4.7	1.3	.0	6	.0	6.0
1	.0	3.4	4.0	.7	17	.0	8.1
0	1.3	14.8	6.0	.0	33	.0	22.1
-1	.0	8.1	2.7	.0	16	.0	10.7
-2	.0	17.4	.7	.0	27	.0	18.1
-3	2.0	8.7	1.3	.0	18	.0	12.1
-4	4.7	5.4	.0	.0	15	.0	10.1
-5	1.3	4.7	.0	.0	9	.0	6.0
-6	1.3	.0	.0	.0	2	.0	1.3
-7/-8	1.3	.7	.0	.0	3	.0	2.0
TOTAL	18		26		149	0	149
PCT	12.1	69.1	17.4	1.3	100.0		100.0

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.5	.0	.0	.0	.0	1.5	2.0	2.0	.0	.0	.0	.0	4.0
1-2	.0	.0	.0	.0	.0	.0	.0	2.0	.5	.0	.0	.0	.0	2.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.5	.0	.0	.0	.0	1.5	4.0	2.5	.0	.0	.0	.0	6.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.0	.0	.0	.0	.0	6.0	.0	8.0	.0	.0	.0	.0	8.0
1-2	.0	10.5	.0	.0	.0	.0	10.5	.5	13.5	.0	.0	.0	.0	14.0
3-4	.0	7.5	2.0	.0	.0	.0	9.5	.0	.5	6.0	.0	.0	.0	6.5
5-6	.0	2.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	4.0	22.0	2.0	.0	.0	.0	28.0	.5	22.0	6.0	.0	.0	.0	28.5

PERIOD: (OVER-ALL) 1963-1972

MAY

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.3E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL
<1	2.0	4.0	.0	.0	.0	.0	6.0	2.0	2.0	.0	.0	.0	.0	2.0	
1-2	3.5	5.5	.0	.0	.0	.0	9.0	2.0	.0	2.0	.0	.0	.0	4.0	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	2.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.5	9.5	.0	.0	.0	.0	15.0	2.0	2.0	4.0	.0	.0	.0	8.0	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL
<1	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.5	
1-2	.0	.0	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	2.0	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	2.5	.0	.0	.0	.0	2.5	90.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	19.6	19.6	.0	.0	.0	.0	39.2	
1-2	7.8	31.4	2.0	.0	.0	.0	41.2	
3-4	.0	7.8	9.8	.0	.0	.0	17.6	
5-6	.0	2.0	.0	.0	.0	.0	2.0	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	27.5	60.8	11.8	.0	.0	.0	100.0	51

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PPRCL - QUENCY OF WAVE HEIGHT (FT) V. WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	22.4	39.5	11.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	56
6-7	.0	.0	7.9	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
INDEX	15.8	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13
TOTAL	29	30	16	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76
PCT	38.2	39.5	2.1	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 191-1971  
(OVER-ALL) 1856-1971

JUNE

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FOG NO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
N	.0	22.0	.0	.0	.0	.0	.0	22.0	.0	.0	.0	.0	.0	.0	78.0
NE	10.8	10.8	.0	.0	.0	.0	.0	21.6	.0	.0	.0	16.2	.0	.0	62.2
E	.0	1.8	.0	.0	.0	.0	.0	1.8	1.3	3.5	2.6	.0	.0	.0	90.8
SE	5.9	2.6	.3	.0	.0	.0	.0	8.8	4.2	6.5	2.0	.0	.0	.0	81.0
S	13.2	.0	10.4	.0	.0	.0	.0	16.0	3.8	3.8	9.4	.0	.0	.0	70.8
SW	.0	.0	.0	.0	.0	.0	.0	.0	12.9	12.9	.0	.0	.0	.0	74.2
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	41.2	.0	.0	.0	.0	.0	41.2	.0	.0	.0	.0	.0	.0	58.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	4.6	4.1	1.5	.0	.0	.0	.0	9.1	3.0	4.6	3.6	.0	.0	.0	81.2
TOT OBS	197														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FOG NO PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
00003	4.4	6.9	2.2	.0	.0	.0	.0	15.6	4.4	2.2	2.2	.0	.0	.0	77.8
06009	7.7	.0	1.9	.0	.0	.0	.0	7.7	.0	3.8	1.9	.0	.0	.0	88.5
12015	4.5	4.5	2.3	.0	.0	.0	.0	9.1	6.8	6.8	2.3	.0	.0	.0	77.2
18021	3.1	4.7	.0	.0	.0	.0	.0	7.8	1.6	6.3	6.3	.0	.0	.0	79.7
TOT PCT	4.9	4.4	1.5	.0	.0	.0	.0	9.8	2.9	4.9	3.4	.0	.0	.0	81.0
TOT OBS	205														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21	
N	.7	2.0	.3	.0	.0	.0		3.0	6.6	2.2	.0	2.7	1.6	6.3	.0	3.4	2.0	
NE	1.3	4.3	.8	.0	.0	.0		6.4	6.8	4.9	3.8	3.6	4.8	5.7	.0	10.3	10.0	
E	2.7	19.5	3.7	.0	.0	.0		27.3	7.7	25.3	38.5	26.4	34.7	23.9	18.8	23.8	32.7	
SE	2.7	28.4	7.7	.1	.0	.0		38.5	8.1	43.8	34.6	36.7	36.3	40.3	43.8	38.7	34.7	
S	1.7	7.9	1.3	.1	.0	.0		11.1	7.4	10.5	7.7	12.6	13.3	12.5	12.5	9.4	8.7	
SW	.6	4.0	.6	.0	.0	.0		5.2	6.9	6.8	.0	8.1	2.8	3.4	6.3	4.3	5.3	
W	.1	1.3	.4	.0	.0	.0		1.8	8.3	1.2	.0	4.1	.0	.0	6.3	2.6	1.3	
NW	.2	1.2	.2	.0	.0	.0		1.6	7.9	1.5	15.4	2.3	.0	2.3	.0	1.0	.0	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	5.2							5.2	.0	3.7	.0	3.6	6.5	5.7	12.5	6.7	5.3	
TOT OBS	82	372	67	1	0	0		542	7.3	81	13	111	62	88	8	104	75	
TOT PCT	15.1	68.6	16.1	.2	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-6	7-16	17-27	28-40	41+						00	06	12	18	21		
N	1.4	1.6	.0	.0	.0			3.0	6.6	1.9	2.3	5.7	2.8				
NE	3.4	3.0	.0	.0	.0			6.4	6.8	4.8	4.0	5.2	10.2				
E	12.3	14.3	.6	.0	.0			27.3	7.7	27.1	29.3	23.4	27.5				
SE	15.3	21.8	1.3	.1	.0			38.5	8.1	42.6	36.6	40.6	37.0				
S	5.2	5.7	.1	.1	.0			11.1	7.4	10.1	12.9	12.5	9.1				
SW	2.8	2.4	.0	.0	.0			5.2	6.9	5.9	6.2	3.6	4.7				
W	.8	.6	.3	.0	.0			1.8	8.3	1.1	2.6	.5	2.0				
NW	.6	1.0	.1	.0	.0			1.6	7.9	2.5	1.4	2.1	.6				
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0				
CALM	5.2							5.2	.0	3.2	4.6	6.3	6.1				
TOT OBS	25	274	13	1	0			542	7.3	94	173	96	179				
TOT PCT	46.9	50.6	2.4	.2	.0			100.0		100.0	100.0	100.0	100.0				



PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1856-1971

JUNE

AREA 0004 NORTHWEST JAVA SFA  
3.65 106.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT	TOTAL
									FREQ	OBS
00003	3.2	9.6	67.6	19.1	1.1	.0	.0	7.7	100.0	94
06009	4.6	9.2	70.5	15.6	.0	.0	.0	7.4	100.0	173
12015	6.3	11.5	69.8	12.5	.0	.0	.0	6.7	100.0	96
18021	6.1	10.1	67.0	16.8	.0	.0	.0	7.3	100.0	179
TOT	28	34	372	87	1	0	0	7.3		542
PCT	5.2	10.0	68.6	16.1	.2	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-6	TOTAL	MEAN
						CLOUD COVER
N	1.1	1.1	2.6	1.1		5.0
NE	.0	.9	1.1	1.1		6.3
E	9.9	8.2	4.3	3.1		3.5
SE	8.2	10.2	18.5	6.3		4.7
S	.0	1.1	3.1	6.3		6.7
SW	1.1	.0	1.1	2.6		9.6
W	.0	.0	1.1	.0		7.0
NW	.0	.0	.9	1.1		7.2
VAR	.0	.0	.0	.0		.0
CALM	.0	2.3	1.1	.0		3.6
TOT OBS	18	21	30	19	88	4.8
TOT PCT	20.5	23.9	34.1	21.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.1
NE	.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	.0	2.0
E	.0	.0	.0	2.3	.0	.0	.0	.0	.0	.0	.0	23.2
SE	.0	.0	.0	4.5	1.1	2.3	.3	.0	.0	.0	.0	35.2
S	.0	.0	.0	3.1	2.3	1.1	.9	.0	.0	.0	.0	3.1
SW	.0	.0	.0	2.6	1.1	.0	.0	.0	.0	.0	.0	1.1
W	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	1.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4
TOT OBS	0	1	1	12	4	3	1	1	0	0	0	88
TOT PCT	.0	1.1	1.1	13.6	4.5	3.4	1.1	1.1	.0	.0	.0	73.9

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	OR >10	OR >5	OR >2	VSBY (NH) OR >1	OR >1/2	OR >1/4	OR >50YD	OR >0
OR >5000	.0	.0	.0	.0	.0	.0	.0	.0
OR >3500	.0	.0	.0	1.1	1.1	1.1	1.1	1.1
OR >2000	.0	1.1	1.1	2.2	2.2	2.2	2.2	2.2
OR >1000	4.3	5.4	5.4	6.5	6.5	6.5	6.5	6.5
OR >600	8.7	9.8	9.8	10.9	10.9	10.9	10.9	10.9
OR >300	18.5	22.8	22.8	25.0	25.0	25.0	25.0	25.0
OR >150	19.6	23.9	23.9	26.1	26.1	26.1	26.1	26.1
OR >0	19.6	23.9	25.0	27.2	27.2	27.2	27.2	27.2
TOTAL	18	22	23	25	25	25	25	25

TOTAL NUMBER OF OBS: 92

PCT FREQ NH <5/8: 72.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL
9.1	16.2	19.2	16.2	12.1	6.1	3.0	5.1	13.1	.0	99

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1856-1971

JUNE

AREA 0004 NORTHWEST JAVA SEA  
3.05 106.0E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
PCP	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.5	
NO PCP	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.5	
TOT %	.0	.5	.0	.5	.0	.0	.0	.0	.0	.0	1.0	
PCP	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5	
NO PCP	.5	.0	.3	.3	.0	.0	.0	.0	.0	.0	1.0	
TOT %	.5	.0	.3	.3	.0	.0	.0	.5	.0	.0	1.5	
PCP	.8	.5	.0	3.4	.6	.0	.0	.3	.0	.0	5.6	
NO PCP	.8	2.3	7.9	11.2	6.3	1.5	.0	.5	.0	1.0	31.5	
TOT %	1.5	2.8	7.9	14.6	7.0	1.5	.0	.8	.0	1.0	37.1	
PCP	.4	.0	.5	.0	1.5	.0	.0	.1	.0	.0	2.5	
NO PCP	2.8	1.4	20.3	23.5	4.9	2.4	.8	.6	.0	1.0	57.9	
TOT %	3.2	1.4	20.8	23.5	6.5	2.4	.8	.6	.0	1.0	60.4	
TOT OBS												197
TOT PCT	5.2	4.7	28.9	38.8	13.5	3.4	.8	2.2	.0	2.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4-10	.0	.0	.5	1.5	.0	.0	.0	.0	.0	.0	.0	2.0	
11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.5	1.5	.0	.0	.0	.0	.0	.0	.0	2.0	
0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4-10	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.7	
11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.7	
0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4-10	.3	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.7	
11-21	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.3	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.3	.0	.2	.2	.0	.0	.0	.3	.0	.0	.0	1.0	
0-3	.0	.0	.2	.8	.7	.0	.0	.0	.0	.0	1.0	2.6	
4-10	1.0	1.8	3.4	6.6	3.3	1.0	.0	.5	.0	.0	.0	17.0	
11-21	.0	.0	1.6	2.9	.0	.0	.0	.0	.0	.0	.0	5.2	
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	1.0	1.8	5.2	9.7	4.7	1.0	.0	.5	.0	1.0	.0	24.8	
0-3	.2	.7	2.0	1.6	.7	.7	.0	.1	.0	3.3	9.2		
4-10	2.0	1.9	16.1	23.0	4.5	2.7	.3	.4	.0	.0	51.0		
11-21	.5	.3	3.3	5.9	.7	.3	.2	.2	.0	.0	11.4		
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	2.7	2.9	21.4	30.5	6.0	3.7	.5	.7	.0	3.3	71.6		
TOT OBS													306
TOT PCT	4.0	5.0	27.3	42.2	10.0	4.7	.5	1.6	.0	4.2	100.0		

JUNE

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1856-1971AREA 0004 NORTHWEST JAVA SEA  
3.6S 106.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET/NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	4.0	.0	4.0	4.0	4.0	4.0	.0	.0	.0	20.0	30.0	25
06009	.0	.0	.0	11.5	3.8	3.8	.0	3.8	.0	.0	23.1	76.9	26
12015	.0	.0	4.2	25.0	4.2	4.2	.0	.0	.0	.0	37.5	62.5	24
18021	.0	.0	.0	19.6	4.5	4.5	.0	.0	.0	.0	22.7	77.3	22
TOT PCT	0 .0	1 1.0	1 1.0	13 13.4	4 4.1	4 4.1	1 1.0	1 1.0	0 .0	0 .0	25 25.8	72 74.2	97 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	3.3	.0	1.6	1.6	21.3	72.1	61
06009	.0	.0	1.3	.0	25.3	73.4	79
12015	1.5	.0	.0	1.5	17.6	79.4	68
18021	2.8	.0	.0	.9	31.8	64.5	107
TOT PCT	6 1.9	0 .0	2 .6	3 1.0	79 25.1	225 71.4	315 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSRY (NM) AND/OR  
CEILING HGT (FEET/NM >4/8) BY HOUR

HOUR (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	4.0	8.0	12.0	80.0	25
06009	.0	.0	17.4	8.7	73.9	23
12015	.0	4.3	30.4	8.7	60.9	23
18021	.0	.0	14.0	9.5	71.4	21
TOT PCT	0 .0	2 2.2	17 18.5	9 9.8	66 71.7	92 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT REQ
35/89	.0	.0	.0	.0	9.9	9.7	1.9	.6	25	10.1
80/84	.0	.0	.0	.0	9.9	26.5	34.2	9.0	114	73.5
75/79	.0	.0	.0	.0	.0	6	5.2	4.5	16	10.3
TOTAL	0	0	0	0	12	57	64	22	135	100.0
PCT	.0	.0	.0	.0	7.7	36.8	41.3	14.2		

TABLE 1

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	3.7	7.6	3.5	.0	.0	.0	0	1.3
4.7	4.7	21.5	30.8	7.7	2.1	.6	.8	.0	.0
1.9	.0	.6	2.7	3.1	.6	.0	1.3	.0	.0
6.0	5.3	25.8	41.1	14.4	2.7	.6	2.1	.0	1.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	86	83	82	77	75	75	82.1	93
06009	90	89	88	84	80	77	76	83.8	165
12015	87	85	84	82	78	75	75	81.8	99
18021	85	84	84	82	79	77	75	81.5	183
TOT	90	88	86	82	79	76	75	82.5	540

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	2.9	32.4	44.1	20.6	82	34		
06009	.0	.0	20.0	52.5	20.0	7.5	76	40		
12015	.0	.0	2.8	27.8	59.6	13.9	83	36		
18021	.0	.0	3.7	35.2	46.9	14.8	81	34		
TOT	0	0	12	61	68	23	60	164		

PERIOD: (211MAR) 1912-1971  
(OVER-ALL) 1856-1971

JUNE

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	TOT	N FOG	NO FOG
5	.0	.6	.6	.6	3	.0	1.7
4	.0	.0	.6	1.2	3	.0	1.7
3	.0	.0	.6	.0	1	.0	.6
2	.0	.0	3.5	4.1	13	.0	7.6
1	.0	.0	7.6	2.9	18	.0	10.5
0	.0	.0	16.3	3.4	34	3.5	16.3
-1	.0	.6	11.0	2.3	24	.6	13.4
-2	.0	1.7	9.3	1.2	21	.0	12.2
-3	.0	.0	4.1	.0	7	.0	4.1
-4	.0	3.5	8.1	.0	20	.0	11.6
-5	1.2	1.2	6.4	.0	15	.0	9.7
-6	.0	.0	1.2	.0	2	.0	1.2
-7/-8	.0	2.3	1.2	.0	6	.0	3.5
-9/-10	.6	1.2	.0	.0	3	.0	1.7
-11/-13	.6	.6	.0	.0	2	.0	1.2
TOTAL	4	20	121	27	172	7	165
PCT	2.3	11.6	70.3	15.7	100.0	4.1	95.9

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	1.6	.0	.0	.0	.0	1.6	.0	.0	.0	.0	.0	.0	.0
1-2	.0	4.2	2.1	.0	.0	.0	6.3	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.7	2.1	.0	.0	.0	7.8	.0	1.0	.0	.0	.0	.0	1.0

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	2.1	6.3	.0	.0	.0	.0	8.3	2.1	2.1	.0	.0	.0	.0	4.2
1-2	.0	7.6	2.1	.0	.0	.0	9.9	2.1	18.8	2.1	.0	.0	.0	22.9
3-4	2.1	1.6	.0	.0	.0	.0	3.6	.0	6.3	6.8	.0	.0	.0	13.0
5-6	.0	.0	3.1	.0	.0	.0	3.1	.0	.0	5.2	.0	.0	.0	5.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	4.2	13.6	1.2	.0	.0	.0	29.0	4.2	27.1	14.1	.0	.0	.0	45.3

PERIOD: (OVER-ALL) 1963-1971

JUNE  
TABLE 18 (CONT)AREA 0004 NORTHWEST JAVA SEA  
3.05 106.0E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	3.6	.0	.0	.0	.0	3.6	.0	4.7	.0	.0	.0	.0	4.7
3-4	.0	2.1	1.6	.0	.0	.0	3.6	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.7	1.6	.0	.0	.0	7.3	.0	4.7	.0	.0	.0	.0	4.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	.0	.0	.0	.0	2.1
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	2.6	.0	.0	.0	.0	.0	2.6 93.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	10.4	10.4	.0	.0	.0	.0	20.8	
1-2	2.1	41.7	6.3	.0	.0	.0	50.0	
3-4	2.1	10.4	8.3	.0	.0	.0	20.8	
5-6	.0	.0	8.3	.0	.0	.0	8.3	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	14.6	62.5	22.9	.0	.0	.0	100.0	48

PERIOD: (OVER-ALL) 1950-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	7.2	34.8	30.4	5.8	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	55	3
6-7	.0	.0	4.3	1.4	2.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	5
8-9	.0	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	5
10-11	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	8.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	0
TOTAL	11	24	24	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	3
PCT	15.9	34.8	34.8	8.7	5.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1905-1972  
(OVER-ALL) 1857-1972

JULY

AREA 0004 NORTHWEST JAVA SEA  
3.75 106.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	FRZL	FRIG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT GS TIME	PCPN PAST HOUR	THDR LTNG	FGG W/ PCPN	FGG W/ PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW
N	27.3	.0	36.4	.0	.0	.0	.0	63.6	.0	.0	18.2	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	1.9	.0	11.5	.0	.0	.0
E	.0	1.9	.0	.0	.0	.0	.0	1.0	2.2	5.6	6.3	.0	.0	.0
SE	.0	2.4	.0	.0	.0	.0	.0	2.4	.0	2.4	1.3	.0	.0	.0
S	11.9	.0	.0	.0	.0	.0	.0	11.9	.0	7.1	.0	.0	.0	.0
SW	26.8	.0	.0	.0	.0	.0	.0	26.8	14.5	12.2	.0	.0	.0	.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NW	20.0	.0	.0	.0	.0	.0	.0	20.0	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.7	1.6	.5	.0	.0	.0	.0	4.8	2.1	4.3	4.3	.0	.0	.0
TOT OBS	187													85.6

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	FRZL	FRIG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT GS TIME	PCPN PAST HOUR	THDR LTNG	FGG W/ PCPN	FGG W/ PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW
0000	4.7	4.7	.0	.0	.0	.0	.0	9.3	7.0	2.3	7.0	.0	.0	.0
0600	2.2	2.2	.0	.0	.0	.0	.0	4.3	.0	2.2	.0	.0	.0	.0
1200	2.4	2.4	.0	.0	.0	.0	.0	4.9	2.4	.0	.0	.0	.0	.0
1800	3.0	.0	1.5	.0	.0	.0	.0	4.5	.0	9.0	7.3	.0	.0	.0
TOT PCT	3.0	2.0	.5	.0	.0	.0	.0	5.6	2.0	4.1	4.1	.0	.0	.0
TOT OBS	197													85.3

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.5	.6	.7	.0	.0	.0		1.2	5.8		1.4	.0	2.4	1.1	.0	.0	.4	.6
NE	.7	3.6	1.0	.0	.0	.0		5.3	7.3		1.0	6.3	3.5	6.5	1.2	.0	12.5	7.7
E	2.3	26.1	10.9	.2	.0	.1		39.5	9.2		39.9	37.5	34.1	29.3	36.2	63.6	39.9	55.1
SE	1.2	24.6	10.4	.9	.0	.0		37.1	9.7		41.2	31.3	35.0	45.7	47.9	36.4	32.2	26.9
S	.6	5.6	.8	.0	.0	.0		7.0	6.8		5.4	6.3	9.3	8.7	7.1	.0	8.4	2.6
SW	.1	2.6	.7	.0	.0	.0		3.5	8.8		7.1	18.8	5.7	4.3	1.8	.0	.7	.0
W	.2	1.5	.7	.0	.0	.0		1.8	7.0		1.4	.0	5.1	.0	1.2	.0	.0	1.3
NW	.5	1.5	.1	.0	.0	.0		2.2	5.5		1.4	.0	2.7	3.3	2.4	.0	1.9	1.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.4							2.4	.0		1.4	.0	2.2	2.2	2.4	.0	2.9	4.8
TOT OBS	46	359	132	4	0	0	543		8.7		74	8	137	46	85	11	104	78
TOT PCT	8.5	66.1	24.3	1.1	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	.8	.4	.0	.0	.0		1.2	5.8	1.2	2.0	.0	1.1	
NE	2.7	2.5	.1	.0	.0		5.3	7.3	1.5	4.2	1.0	10.4	
E	10.9	25.9	2.8	.0	.0		39.5	9.2	39.6	32.7	39.3	45.4	
SE	10.3	22.8	4.0	.0	.0		37.1	9.7	40.2	37.7	46.6	29.9	
S	4.1	7.9	.0	.0	.0		7.0	6.8	5.5	9.2	6.3	5.9	
SW	1.1	2.2	.2	.0	.0		3.5	8.8	8.2	5.3	1.6	.4	
W	.9	.9	.0	.0	.0		1.8	7.0	1.2	3.8	1.0	.5	
NW	1.6	.6	.0	.0	.0		2.2	5.5	1.2	2.9	2.1	1.9	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	2.4						2.4	.0	1.2	2.2	2.1	3.3	
TOT OBS	189	316	38	0	0	543		8.7	82	183	96	182	
TOT PCT	34.3	58.2	7.0	.0	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1905-1972  
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	1.2	3.7	64.6	26.8	3.7	.0	.0	.0	9.8	100.0	82
06009	2.2	7.7	59.6	30.6	.0	.0	.0	.0	9.0	100.0	183
12015	2.1	6.3	77.9	17.7	1.0	.0	.0	.0	8.1	100.0	96
18021	3.3	5.5	69.8	20.3	1.1	.0	.0	.0	8.2	100.0	182
TOT	13	33	359	132	6	0	0	0	8.7		543
PCT	4.4	6.1	65.1	24.3	1.1	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.0	.8		8.0
NE	1.0	1.3	.3	.0		3.1
E	10.7	10.5	15.1	2.6		4.0
SE	8.7	11.7	15.3	1.8		4.2
S	1.0	2.0	.8	2.8		5.4
SW	.0	1.0	2.3	4.1		6.6
W	.0	.0	2.0	.0		7.0
NW	.0	.0	1.0	.3		6.4
VAR	.0	.0	.0	.0		.0
CALM	2.0	.0	1.0	.0		3.0
TOT OBS	23	26	37	12	98	4.4
TOT PCT	23.5	26.5	37.8	12.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER	CEILING HEIGHTS (FT, NM >4/8)										NM <5/8 ANY HGT	TOTAL OBS
							000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+		
N	.0	.0	.0	.8		8.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8		
NE	1.0	1.3	.3	.0		3.1	.0	.0	.0	.0	.3	.0	.0	.0	.0	2.3		
E	10.7	10.5	15.1	2.6		4.0	.0	.0	.0	.0	2.6	4.3	2.0	.0	.0	29.8		
SE	8.7	11.7	15.3	1.8		4.2	.0	.0	1.0	2.0	1.8	3.6	.0	1.0	.0	28.1		
S	1.0	2.0	.8	2.8		5.4	.0	.0	1.3	.0	.8	.8	.0	.0	.0	3.8		
SW	.0	1.0	2.3	4.1		6.6	.0	.0	.6	1.0	3.1	.3	.0	.0	.0	2.3		
W	.0	.0	2.0	.0		7.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	1.0		
NW	.0	.0	1.0	.3		6.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3		
VAR	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	2.0	.0	1.0	.0		3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.1		
TOT OBS	23	26	37	12	98	4.4	0	0	3	3	8	10	2	1	0	71	98	
TOT PCT	23.5	26.5	37.8	12.2	100.0		.0	.0	3.1	3.1	8.2	10.2	2.0	1.0	.0	72.4	100.0	

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.0	.0	.0	.0	.0	.0	.0	.0
>5000	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
>3500	1.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
>2000	9.7	12.6	12.6	12.6	12.6	12.6	12.6	12.6
>1000	14.6	19.4	20.4	20.4	20.4	20.4	20.4	20.4
>600	17.5	23.3	24.3	24.3	24.3	24.3	24.3	24.3
>300	17.5	25.2	27.2	27.2	27.2	27.2	27.2	27.2
>150	17.5	25.2	27.2	27.2	27.2	27.2	27.2	27.2
>0	17.5	25.2	27.2	27.2	27.2	27.2	27.2	27.2
TOTAL	16	26	28	28	28	28	28	28

TOTAL NUMBER OF OBS: 103

PCT FREQ NM <5/8: 72.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
6.3	19.2	16.8	15.4	18.8	7.1	9.6	4.5	4.5	.0	112

TABLE A

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL DBS
1/2	PCP NO PCP TOT %	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	
1/2<1	PCP NO PCP TOT %	.0 .0 .0	.0 .0 .0	.0 .5 .5	.0 .5 .5	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	1.1 1.1
1<2	PCP NO PCP TOT %	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0
2<5	PCP NO PCP TOT %	.0 .0 .0	.0 .1 .0	.3 .0 .3	.3 .0 .3	.4 .0 .4	.7 .0 .7	.0 .0 .0	.0 .0 .0	.0 .0 .0	.0 .0 .0	1.6 1.6
5<10	PCP NO PCP TOT %	.5 .5 1.1	.0 3.7 3.7	.5 8.0 8.6	.5 7.3 8.0	.3 1.9 2.1	.8 .0 1.6	.0 .5 .5	.0 .0 .0	.0 1.1 1.1	.0 24.1 25.7	
10+	PCP NO PCP TOT %	.4 .0 .4	.0 3.2 3.2	.0 33.4 33.4	.0 24.5 24.5	.0 3.1 3.1	.0 3.2 3.2	.0 .5 .5	.1 .5 .7	.0 1.6 1.6	.0 70.1 70.6	.5
	TOT DBS TOT PCT	1.5	7.0	42.8	33.3	5.6	5.5	1.1	.7	.0	2.7	100.0

TABLE 9

### PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	ME	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
41/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.4	.7	.0	.0	.0	.0	.0		1.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.4	1.1	.0	.0	.0	.0	.0	.0	1.5	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.4	.4	.0	.0	.0	.0	.0		.7	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	.0	.4	.4	.0	.0	.0	.0	.0	.0	.7	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.2	.2	.3	.5	.0	.0	.0	.0	1.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.2	.2	.3	.5	.0	.0	.0	.0	1.1	
5<10	0-3	.5	.2	.2	.2	.0	.0	.0	.0	.0	.7	1.4	
	4-10	.2	2.0	5.3	3.5	1.3	.9	.4	.0	.0		13.5	
	11-21	.0	.4	.4	2.5	.2	.2	.0	.0	.0		3.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.7	2.5	5.8	6.2	1.5	1.1	.4	.0	.0	.7	18.9	
10+	0-3	.0	.9	2.2	.7	.5	.0	.0	.0	.0	1.5	5.8	
	4-10	.3	3.3	24.6	20.0	1.9	1.1	.4	.5	.0		52.0	
	11-21	.0	.4	9.7	7.4	.9	1.3	.0	.0	.0		19.6	
	22+	.0	.0	.0	.4	.0	.0	.0	.0	.0		.4	
	TOT %	.3	4.5	36.5	28.5	3.4	2.4	.4	.5	.0	1.5	77.8	
TOT OBS TOT Pct													275
		1.0	7.1	62.3	36.3	5.1	3.9	.7	.5	.0	2.2	100.0	



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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET)  $\geq 4/8$  AND  
OCCURRENCE OF NM  $\leq 5/8$  BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	1000+	TOTAL	NM $\leq 5/8$ ANY HGT	TOTAL OBS
00003	.0	.0	.0	7.4	18.5	14.8	.0	.0	.0	.0	40.7	59.3	27
06009	.0	.0	.0	3.3	6.7	13.3	3.3	.0	.0	.0	26.7	73.3	30
12015	.0	.0	8.3	.0	.0	.0	.0	4.2	.0	.0	12.5	87.5	24
18021	.0	.0	3.3	3.3	3.3	6.7	3.3	.0	.0	.0	20.0	80.0	30
TOT	0	0	3	4	8	10	2	1	0	0	28	83	111
PCT	.0	.0	2.7	3.6	7.2	9.0	1.8	.9	.0	.0	25.2	74.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	$\leq 1/2$	1/2-1	1-2	2-5	5-10	10+	TOTAL OBS
00003	1.9	1.9	.0	3.8	20.8	71.7	53
06009	1.6	.0	.0	.0	23.0	75.4	61
12015	1.6	.0	.0	.0	17.5	81.0	63
18021	.9	.9	.0	.9	17.0	79.6	108
TOT	4	2	0	3	55	221	285
PCT	1.4	.7	.0	1.1	19.3	77.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET)  $\geq 4/8$  BY HOUR

HOURL (GMT)	$\leq 150$ $\leq 50YD$	$\leq 600$ $\leq 1$	$\leq 1000$ $\leq 5$	1000+ AND 5+	NM $\leq 5/8$ AND 5+	TOTAL OBS
00003	.0	.0	12.0	32.0	56.0	25
06009	.0	.0	3.6	23.0	71.4	28
12015	.0	9.1	9.1	4.5	86.4	22
18021	.0	3.6	7.1	14.3	78.6	28
TOT	0	3	8	20	75	103
PCT	.0	2.9	7.8	19.4	72.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.0	.7	.0	.0	1	.7
85/89	.0	.0	.0	.0	2.1	4.3	.0	.0	9	6.4
80/84	.0	.0	.0	.0	1.4	40.0	40.0	2.9	118	84.3
75/79	.0	.0	.0	.0	.0	.7	5.0	2.1	11	7.9
70/74	.0	.0	.0	.0	.0	.0	.7	.0	1	.7
TOTAL	0	0	0	0	3	64	64	7	140	100.0
PCT	.0	.0	.0	.0	3.6	45.7	45.7	5.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.0	.0	.0	.5	.2	.0	.0	.0	.0
85/89	.0	.7	2.7	2.3	.0	.7	.0	.0	.0	.0
80/84	.7	6.1	34.8	30.9	3.8	4	1.4	.7	.0	3.6
75/79	1.3	.0	.0	.7	1.8	3.9	.0	.2	.0	.0
70/74	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0
TOTAL	2.0	6.8	39.5	33.9	6.1	5.9	1.4	.9	.0	3.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	87	85	82	77	73	73	81.8	81
06009	91	90	87	83	79	76	76	83.0	180
12015	85	84	84	82	79	76	76	81.5	96
18021	87	84	83	82	80	77	77	81.5	188
TOT	91	88	85	82	79	76	73	82.1	545

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	3.0	42.4	48.5	6.1	79	33
06009	.0	.0	3.7	60.0	28.6	3.7	78	35
12015	.0	.0	.0	44.8	48.3	6.9	81	29
18021	.0	.0	3.8	32.1	62.3	1.9	80	53
TOT	0	0	5	65	73	7	80	150

PERIOD: (PRIMARY) 1905-1972  
(OVER-ALL) 1857-1972

JULY

AREA 0004 NORTHWEST JAVA SFA  
3.75 106.66

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	WQ FOG
6	.0	.0	1.2	.0	.0	2	.0	1.2
5	.0	.0	.0	.6	.0	2	.0	1.2
4	.0	.0	.5	3.0	.0	6	.0	3.0
3	.0	.0	6.7	.0	.0	12	.0	7.3
2	.0	.0	6.7	1.8	.0	14	.6	7.9
1	.0	.0	17.6	1.2	.0	31	1.6	17.0
0	.0	.0	18.2	1.2	.0	33	1.8	18.2
-1	.0	4.2	13.9	.0	.0	30	.0	18.2
-2	.0	3.0	5.5	.0	.0	14	.0	8.5
-3	.0	3.6	3.6	.0	.0	12	.0	7.3
-4	.0	.0	1.8	.0	.0	3	.0	1.8
-5	.0	.0	.0	.0	.0	1	.0	.6
-6	1.2	1.2	.0	.0	.0	4	.0	2.4
-7/-8	.6	.0	.0	.0	.0	1	.0	.6
-9/-10	.0	.0	.0	.0	.0	7	.0	1.8
TOTAL	5	21	125	13	1	165	4.2	95.8
PCT	3.0	12.7	75.8	7.9	.6	100.0	4.2	95.8

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.5
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.2	1.3	.0	.0	.0	2.3
3-4	.0	1.4	.0	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.4	.0	.0	.0	.0	1.4	.0	.9	1.8	.0	.0	.0	2.7

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	1.8	4.5	.0	.0	.0	.0	6.4	.0	5.9	.0	.0	.0	.0	5.9
1-2	.0	9.5	1.8	.0	.0	.0	11.4	.0	11.8	1.8	.0	.0	.0	13.6
3-4	.0	6.4	15.0	.0	.0	.0	21.4	.0	5.0	3.2	1.8	.0	.0	10.0
5-6	.0	.0	3.2	.0	.0	.0	3.2	.0	.0	4.1	.0	.0	.0	4.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8	.0	.0	.0	1.8
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.8	20.5	20.0	.0	.0	.0	42.3	.0	22.7	10.9	1.8	.0	.0	35.5

PERIOD: (OVER-ALL) 1963-1972

JULY

AREA 0004 NORTHWEST JAVA SEA  
3.75 106.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	2.7	.0	.0	.0	.0	2.7	.0	6.4	.0	.0	.0	.0	6.4
3-4	.0	1.4	.0	.0	.0	.0	1.4	.0	.0	1.8	.0	.0	.0	1.8
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.1	.0	.0	.0	.0	4.1	.0	6.4	1.8	.0	.0	.0	8.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.7	.0	.0	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.5	.5
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.8	.0	.0	.0	.0	1.8	.0	.5	.0	.0	.0	.0	.5	96.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.2	12.3	.0	.0	.0	.0	17.5	
1-2	1.8	21.6	5.3	.0	.0	.0	38.6	
3-4	.0	14.0	19.3	1.8	.0	.0	35.1	
5-6	.0	.0	7.0	.0	.0	.0	7.0	
7	.0	.0	1.8	.0	.0	.0	1.8	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.0	57.9	33.3	1.8	.0	.0	100.0	27

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	9.1	27.3	22.1	9.1	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	53	3
6-7	.0	.0	7.8	6.5	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12	4
8-9	.0	1.3	.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0
INDET	7.8	3.9	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10	1
TOTAL	13	25	24	12	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	77	7
PCT	16.9	32.5	31.2	15.6	1.3	1.3	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1966-1972  
(OVER-ALL) 1858-1972

AUGUST

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DR7L	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	93.0
E	1.0	.7	.0	.0	.0	.0	.0	1.7	.0	1.4	.0	.0	1.4	.0	95.3
SE	2.5	.5	.0	.0	.0	.0	.0	3.0	1.0	2.0	1.0	.0	.0	.0	92.9
S	9.7	.0	.0	.0	.0	.0	.0	9.7	.0	.0	.0	.0	.0	.0	90.3
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
VAP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	2.0	.5	.0	.0	.0	.0	.0	2.5	.5	1.5	1.0	.0	.5	.0	94.0
TOT OBS:	201														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DR7L	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
0000	2.0	2.0	.0	.0	.0	.0	.0	4.0	2.0	2.0	.0	.0	2.0	.0	90.0
0600	4.3	2.1	.0	.0	.0	.0	.0	6.4	.0	.0	.0	.0	.0	.0	93.6
1200	4.3	2.1	.0	.0	.0	.0	.0	6.4	.0	2.1	2.1	.0	.0	.0	89.4
1800	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	1.5	.0	1.5	.0	95.3
TOT PCT	2.4	1.4	.0	.0	.0	.0	.0	3.8	.0	1.4	.9	.0	.9	.0	92.4
TOT OBS:	211														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FRFQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.2	.7	.0	.0	.0	.0		.8	5.6		.0	.0	.8	.0	1.1	.0	1.3	1.0
NE	1.1	4.5	1.0	.0	.0	.0		6.6	7.5		3.9	3.3	2.0	.0	8.5	.0	12.8	10.8
E	1.7	23.2	9.0	.0	.0	.0		34.0	8.7		31.7	23.3	29.3	28.6	35.1	40.0	42.0	35.8
SE	2.5	29.7	15.2	.3	.0	.0		47.8	9.4		54.5	70.0	51.4	65.9	43.1	60.0	34.2	41.5
S	.7	5.4	.6	.0	.0	.0		6.7	6.7		4.8	3.3	4.3	5.6	11.2	.0	4.6	6.7
SW	.0	.7	.7	.2	.0	.0		1.6	12.5		1.4	.0	3.5	.0	1.1	.0	1.7	1.0
W	.2	.4	.2	.0	.0	.0		.8	7.7		2.0	.0	1.6	.0	.0	.0	.8	.0
NW	.2	.3	.0	.0	.0	.0		.3	4.0		.0	.0	1.6	.0	.0	.0	.8	.0
VAP	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.3							1.3	.0		1.1	.0	1.6	.0	.0	.0	1.7	3.1
TOT OBS	48	399	164	3	0	0	614	1.3	8.7		89	15	127	63	94	10	119	97
TOT PCT	7.8	65.0	26.7	.5	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FRFQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	03	06	12
N	.6	.2	.0	.0	.0		.8	5.6	.5	.5	1.0	1.2
NE	2.8	3.6	.2	.0	.0		6.6	7.5	3.8	1.3	7.7	11.9
E	10.4	23.0	.6	.0	.0		34.0	8.7	30.5	29.1	45.6	39.2
SE	12.8	32.0	9.0	.0	.0		47.8	9.4	50.7	56.2	44.7	37.5
S	3.7	3.0	.0	.0	.0		6.7	6.7	4.6	7.4	10.1	5.6
SW	.3	.8	.5	.0	.0		1.6	12.5	1.2	2.4	1.0	1.4
W	.3	.4	.0	.0	.0		.8	7.7	1.7	1.1	.0	.5
NW	.5	.0	.0	.0	.0		.5	4.0	.0	1.1	.0	.5
VAP	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.3						1.3	.0	1.0	1.1	.0	2.3
TOT OBS	201	387	26	0	0	614	1.3	8.7	104	190	104	216
TOT PCT	32.7	63.0	4.2	.0	.0		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1906-1972  
(COVER-ALL) 1958-1972

AUGUST

AREA 0004 MUPTHNESS JAVA SEA  
3.6S 106.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	1.0	4.0	67.3	22.1	.0	.0	.0	8.2	100.0	104
0600	1.1	6.8	54.7	37.4	.3	.0	.0	9.5	100.0	190
1200	.0	3.4	69.2	26.9	.0	.0	.0	8.8	100.0	104
1800	2.3	6.0	71.3	19.4	.9	.0	.0	8.2	100.0	216
TOT	6	40	344	104	3	0	0	8.7		614
PCT	1.3	6.5	65.0	26.7	.5	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.0	.0	.0	.0
NE	1.4	1.1	1.4	.0	3.5	3.5
E	12.4	8.0	16.2	1.9	3.9	3.9
SE	12.9	17.6	16.8	3.6	4.0	4.0
S	1.9	.8	1.9	.0	4.0	4.0
SW	.0	.0	.0	1.1	5.0	5.0
W	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0
CALM	1.1	.0	.0	.0	1.0	1.0
TOT OBS	27	25	33	6	61	3.9
TOT PCT	29.7	27.5	36.3	6.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	ANY NH <5/8	TOTAL OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	1.6	1.6	.0	.0	1.1	.0	.0	.0	3.0
SE	.0	.0	.0	4.7	1.1	.3	2.2	.0	.0	.0	.0	34.1
S	.0	.0	.0	.0	1.1	.8	.0	.0	.0	.0	.0	2.7
SW	.0	.0	.0	.0	.0	.0	1.1	.0	.0	.0	.0	.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT OBS	0	0	0	6	4	1	3	1	0	2	14	91
TOT PCT	.0	.0	.0	6.6	4.4	1.1	3.3	1.1	.0	2.2	81.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>5000	>0
>6500	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
>5000	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
>3500	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
>2000	6.7	7.9	7.9	7.9	7.9	7.9	7.9	7.9
>1000	11.2	12.4	12.4	12.4	12.4	12.4	12.4	12.4
>600	16.9	19.1	19.1	19.1	19.1	19.1	19.1	19.1
>300	16.9	19.1	19.1	19.1	19.1	19.1	19.1	19.1
>150	16.9	19.1	19.1	19.1	19.1	19.1	19.1	19.1
>0	16.9	19.1	19.1	19.1	19.1	19.1	19.1	19.1
TOTAL	15	17	17	17	17	17	17	17

TOTAL NUMBER OF OBS: 89

PCT FREQ NH <5/8: 80.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
14.0	12.9	22.6	20.4	10.8	5.4	2.2	9.7	2.2	.0	93

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	N	MF	F	SF	S	S-	=	+	VAR	CAL	PCT	TOTAL OBS
PCP	.7	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	
<1/2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
PCP	.0	.0	.0	.0	.0	.7	.7	.0	.0	.0	.0	
1/2<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.7	.7	.0	.0	.0	.0	
PCP	.7	.0	.5	.5	.0	.0	.0	.0	.0	.0	.5	
1<2	.0	.0	.5	.5	.0	.0	.0	.0	.0	.0	.5	
NO PCP	.0	.0	.5	.5	.0	.0	.0	.0	.0	.0	.5	
TOT %	.0	.0	.5	.5	.0	.0	.0	.0	.0	.0	1.0	
PCP	.7	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	
2<5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NO PCP	.0	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.7	.7	.0	.0	.0	.0	
PCP	.0	.7	.5	.5	.4	.7	.0	.0	.0	.0	1.5	
5<10	.8	3.8	7.8	10.3	.5	.5	.0	.0	.0	1.0	24.6	
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.8	3.8	8.4	10.8	.9	.5	.0	.0	.0	1.0	26.1	
PCP	.0	.0	.5	.5	.0	.0	.0	.0	.0	.0	.5	
10+	.0	3.4	27.6	36.8	3.0	.5	.5	.0	.0	.0	72.4	
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	3.4	27.6	37.3	3.0	.5	.5	.0	.0	.0	72.9	
TOT OBS												199
TOT PCT	.8	7.2	36.6	48.6	3.9	1.0	.5	.0	.0	1.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL DRS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.3	
	4-10	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.6	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	
5<10	0-3	.3	.9	.2	.2	.0	.0	.0	.0	.0	.6	2.2	
	4-10	.2	1.1	3.2	4.3	.5	.0	.0	.0	.0	.0	9.3	
	11-21	.0	.3	2.2	3.4	.0	.3	.0	.0	.0	.0	6.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.5	2.3	5.5	7.9	.5	.3	.0	.0	.0	.6	17.6	
10+>	0-3	.0	.0	.3	2.5	.3	.0	.0	.0	.0	.6	3.7	
	4-10	.2	4.4	23.1	26.0	3.1	.0	.3	.3	.0	.0	57.4	
	11-21	.0	.5	6.3	13.0	.3	.3	.0	.0	.0	.0	20.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	4.9	29.8	41.4	3.7	.3	.3	.3	.0	.6	81.5	
TOT DRS TOT PCT		.6	7.2	35.6	49.9	4.2	.6	.3	.3	.0	1.2	100.0	324

## AUGUST

PERIOD: (PRIMARY) 1906-1972  
(OVER-ALL) 1858-1972AREA 0004 NORTHWEST JAVA SEA  
3.05 106.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY MGT	TOTAL OBS
00003	.0	.0	.0	10.7	3.6	.0	3.6	3.6	.0	3.6	25.0	75.0	28
06009	.0	.0	.0	10.5	.0	.0	5.3	.0	.0	.0	15.8	84.2	19
12015	.0	.0	.0	4.5	9.1	4.5	.0	.0	.0	.0	22.7	77.3	22
18021	.0	.0	.0	.0	4.3	.0	.0	.0	.0	4.3	8.7	91.3	23
TOT	0	0	0	6	4	1	3	1	0	2	17	75	92
PCT	.0	.0	.0	6.5	4.3	1.1	3.3	1.1	.0	2.2	18.5	81.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2-1	1-2	2-5	5-10	10+	TOTAL OBS
00003	.0	.0	1.5	1.5	15.2	81.8	66
06009	.0	.0	1.3	.0	20.3	78.5	79
12015	.0	.0	.0	.0	20.0	80.0	70
18021	.0	.0	.8	.0	21.0	78.2	119
TOT	0	0	3	1	65	265	334
PCT	.0	.0	.9	.3	19.5	79.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 VSBY	<600 VSBY	<1000 VSBY	1000+ VSBY	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	10.7	14.3	75.0	28
06009	.0	.0	10.5	5.3	84.2	19
12015	.0	.0	4.8	19.0	76.2	21
18021	.0	.0	.0	9.5	90.5	21
TOT	0	0	6	11	72	89
PCT	.0	.0	6.7	12.4	80.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
35/89	.0	.0	.0	.0	3.3	2.0	2.0	.0	11	7.3
80/84	.0	.0	.0	.0	3.3	36.7	39.3	7.3	130	86.7
75/79	.0	.0	.0	.0	.0	2.0	.7	3.3	9	6.0
TOTAL	0	0	0	0	10	61	63	16	150	100.0
PCT	.0	.0	.0	.0	6.7	40.7	42.0	10.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.7	.0	2.2	4.5	.0	.0	.0	.0	.0	.0
.3	7.0	31.0	40.7	4.3	1.3	.0	.0	.0	2.0
.0	1.0	1.5	3.0	.5	.0	.0	.0	.0	.0
1.0	8.0	34.7	48.2	4.8	1.3	.0	.0	.0	2.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	95%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	86	66	85	82	79	77	77	81.9	100
06009	89	88	87	83	79	75	76	82.9	190
12015	85	84	83	82	80	78	78	81.5	105
18021	84	83	82	81	79	77	73	81.1	217
TOT	89	67	85	82	79	76	73	81.6	618

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	43.2	40.5	16.2	82	37
06009	.0	.0	27.3	39.4	18.2	15.2	76	33
12015	.0	.0	2.8	41.7	44.4	11.1	81	36
18021	.0	.0	.0	37.0	53.7	9.3	82	34
TOT	0	0	10	64	66	20	80	160

PERIOD: (PRIMARY) 1906-1972  
(OVER-ALL, 1658-1972)

AUGUST

AREA 0004 NORTHWEST JAVA SEA  
3.63 106.6F

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	77 80	81 84	85 88	86 92	TOT n FOG	WC PCT
9/10	.0	.0	.6	.0	1 .0	.6
7/8	.0	.0	.0	.6	1 .0	.6
5	.0	.0	1.2	.0	2 .0	1.2
4	.0	.0	2.3	.0	5 .0	2.9
3	.0	1.8	2.3	.0	7 .0	4.1
2	.0	3.5	1.2	.0	8 .0	4.7
1	.6	11.1	.0	.0	20 .0	11.7
0	1.8	21.6	.0	.0	40 .0	23.4
-1	2.3	14.6	.0	.0	29 .0	17.0
-2	2.9	17.5	.0	.0	35 .0	20.5
-3	.6	5.3	.0	.0	10 .0	5.8
-4	2.9	1.8	.0	.0	9 .0	4.7
-5	1.2	.6	.0	.0	3 .0	1.8
-6	1.2	.0	.0	.0	2 .0	1.2
TOTAL	23	134	13	1	171	171
PCT	13.5	78.4	7.6	.6	100.0	100.0

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.5
1-2	.0	.0	.0	.0	.0	.0	.0	.0	2.3	.0	.0	.0	.0	2.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	3.5	.0	.0	.0	.0	3.4

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	2.3	.0	.0	.0	.0	2.3	9.1	1.6	.0	.0	.0	.0	4.7
1-2	.0	14.5	6.6	.0	.0	.0	21.1	1.6	14.8	10.5	.0	.0	.0	27.0
3-4	.0	8.2	8.2	.0	.0	.0	16.4	.0	5.5	2.9	.0	.0	.0	11.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	1.6	4.7	.0	.0	.0	6.3
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	.0	.0	.0	1.6
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	.0	.0	.0	1.6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	23.0	14.8	.0	.0	.0	39.8	4.7	23.4	24.2	.0	.0	.0	52.3



PERIOD: (OVER-ALL) 1963-1972

AUGUST

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.2	.0	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0
3-4	.0	1.6	.0	.0	.0	.0	1.6	.0	.0	1.6	.0	.0	.0	1.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.7	.0	.0	.0	.0	2.7	.0	.0	1.6	.0	.0	.0	1.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TGT OBS
<1	4.6	4.6	.0	.0	.0	.0	9.2	
1-2	1.5	32.3	15.9	.0	.0	.0	50.8	
3-4	.0	15.4	15.4	.0	.0	.0	30.8	
5-6	.0	1.5	4.6	.0	.0	.0	6.2	
7	.0	.0	1.5	.0	.0	.0	1.5	
8-9	.0	.0	1.5	.0	.0	.0	1.5	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.2	53.8	40.0	.0	.0	.0	100.0	65

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<1	4.6	26.4	29.3	9.2	1.1	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	59	3
1-2	.0	5.7	10.3	.0	3.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	3
3-4	.0	2.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0
7-9	.0	.0	2.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	5
12-13	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	2
15-17	2.3	2.3	1.1	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	2
TOT PCT	6.9	36.8	39.1	11.5	4.6	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	3

PERIOD: (PRIMARY) 1906-1971  
(OVER-ALL) 1854-1971

SEPTEMBER

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG MEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	5.6	.0	.0	.0	.0	.0	.0	5.6	.0	5.6	.0	.0	.0	.0	83.1
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	.0	.0	3.4	.0	95.2
SE	1.4	1.4	.0	.0	.0	.0	.0	2.8	1.4	.5	1.4	.0	1.7	.0	88.1
S	6.3	12.5	3.1	.0	.0	.0	.0	21.9	.0	.0	.0	.0	.0	.0	78.1
SW	14.8	.0	7.4	.0	.0	.0	.0	22.2	.0	14.8	.0	.0	.0	.0	63.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	2.3	1.7	.6	.0	.0	.0	.0	4.7	.6	3.5	1.2	.6	1.7	.0	87.8
TOT OBS	172														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG MEA
00003	5.1	5.1	.0	.0	.0	.0	.0	10.2	.0	.0	2.6	.0	.0	.0	87.2
06009	2.0	.0	.0	.0	.0	.0	.0	2.6	.0	.0	.0	.0	7.9	.0	89.5
12015	.0	.0	.0	.0	.0	.0	.0	.0	2.4	9.8	.0	.0	.0	.0	87.8
18021	1.7	1.7	1.7	.0	.0	.0	.0	5.0	.0	5.0	1.7	1.7	.0	.0	86.7
TOT PCT	2.2	1.7	.6	.0	.0	.0	.0	4.5	.6	3.9	1.1	.6	1.7	.0	87.6
TOT OBS	178														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.5	.6	.0	.0	.0	.0		1.1	6.2	.5	.0	1.7	.8	.5	.0	1.5	1.2	
NE	1.4	7.5	.0	.2	.0	.0		9.7	6.4	4.6	.0	4.5	7.6	9.5	10.0	16.2	18.5	
E	2.3	20.5	7.6	.1	.0	.0		30.4	8.7	33.8	28.1	29.0	25.8	30.8	60.0	32.2	28.0	
SE	1.9	26.2	9.8	.4	.0	.0		38.3	8.9	38.1	40.9	39.1	47.7	44.7	20.0	37.3	23.8	
S	.6	7.9	1.9	.0	.0	.0		10.5	8.0	13.7	25.0	12.0	9.8	6.3	10.0	3.9	17.3	
SW	.4	2.8	1.0	.0	.0	.0		4.1	7.5	3.4	.0	6.4	4.5	3.9	.0	2.6	3.6	
W	.5	1.3	.4	.0	.0	.0		2.2	7.0	2.1	.0	2.4	.8	1.5	.0	1.8	4.8	
NW	.2	.4	.2	.0	.0	.0		.8	5.5	.5	.0	1.4	.0	.0	.0	.9	1.8	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	2.9							2.9	.0	3.1	.0	3.5	3.0	2.9	.0	3.5	1.2	
TOT OBS	67	417	133	4	0	0	621	8.0		97	8	144	66	103	5	114	84	
TOT PCT	10.8	67.1	21.4	.6	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT REQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	03	09	18
N	.9	.2	.0	.0	.0			1.1	4.2	.5	1.4	.5	1.4	
NE	6.4	3.2	.2	.0	.0			9.7	6.4	4.3	5.5	9.5	17.2	
E	9.6	19.9	.8	.0	.0			30.4	8.7	33.3	28.0	32.2	30.4	
SE	12.5	24.0	1.8	.0	.0			38.3	8.9	38.8	41.8	43.5	31.6	
S	4.2	6.2	.1	.0	.0			10.5	8.0	14.5	11.3	6.5	9.6	
SW	2.1	2.1	.0	.0	.0			4.1	7.5	3.3	5.8	3.7	3.0	
W	1.4	.6	.2	.0	.0			2.2	7.0	1.9	1.9	1.4	3.0	
NW	.6	.2	.0	.0	.0			.8	5.5	.5	1.0	.0	1.3	
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	
CALM	2.9							2.9	.0	2.9	3.3	2.8	2.5	
TOT OBS	292	350	19	0	0	621		8.0		105	210	108	198	
TOT PCT	40.6	56.4	3.1	.0	.0			100.0		100.0	100.0	100.0	100.0	

## SEPTEMBER

PERIOD: (PRIMARY) 1906-1971  
(OVER-ALL) 1854-1971AREA 0004 NORTHWEST JAVA SEA  
3.85 106.5E

TABLE 4

## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT	TOTAL
HR				11-21	22-33	34-47				FREQ	OBS
00003	2.9	7.6	65.7	22.9	1.0	.0	.0	.0	8.2	100.0	105
06009	3.3	6.2	65.2	24.8	.5	.0	.0	.0	8.4	100.0	210
12015	2.8	5.6	65.7	25.0	.9	.0	.0	.0	8.5	100.0	108
18021	2.5	11.1	70.7	15.2	.5	.0	.0	.0	7.3	100.0	198
TOT	18	49	417	133	4	0	0	0	4.0		621
PCT	2.9	7.9	67.1	21.4	.6	.0	.0	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.0	.0		.0
NE	2.9	.0	1.1	.0		2.0
E	11.2	8.0	12.1	2.3		4.0
SE	14.7	18.1	10.9	4.6		3.7
S	.0	1.1	4.3	.0		6.0
SW	.0	.0	1.4	4.6		7.3
W	.0	.0	.0	1.1		8.0
NW	.0	.0	1.1	.0		7.0
VAR	.0	.0	.0	.0		.0
CALM	2.3	.0	.0	.0	87	.5
TOT OBS	27	27	27	11		4.1
TOT PCT	31.0	25.3	31.0	12.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NM >4/8)  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NM <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	1.1	.0	.0	.0	.0	2.9
E	.0	.0	.0	1.1	2.0	1.1	1.1	.0	.0	.0	.0	28.2
SE	.0	.0	1.1	1.1	1.4	2.3	1.1	.0	.0	.0	.0	39.1
S	.0	.0	.0	.0	2.0	.0	1.1	.0	.0	.0	.0	2.3
SW	.0	.0	1.1	.0	3.7	.0	.0	.0	.0	.0	.0	1.1
W	.0	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3
TOT OBS	27	27	27	27	10	3	4	2	0	0	0	87
TOT PCT	.0	.0	2.3	2.3	11.5	3.4	4.6	.0	.0	.0	75.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>5000	>0
>6500	.0	.0	.0	.0	.0	.0	.0	.0
>5000	.0	.0	.0	.0	.0	.0	.0	.0
>3500	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
>2000	5.5	5.6	7.7	7.7	7.7	7.7	7.7	7.7
>1000	12.1	17.6	18.7	18.7	18.7	18.7	18.7	18.7
>600	14.3	19.8	20.9	20.9	20.9	20.9	20.9	20.9
>300	14.3	20.9	23.1	23.1	23.1	23.1	23.1	23.1
>150	14.3	20.9	23.1	23.1	23.1	23.1	23.1	23.1
>0	14.3	20.9	23.1	23.1	23.1	23.1	23.1	23.1
TOTAL	13	19	21	21	21	21	21	21

TOTAL NUMBER OF OBS: 91

PCT FREQ NM &lt;5/8: 76.9

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
	9.1	13.1	30.3	17.2	7.1	5.1	5.1	4.0	9.1	.0	99

PERIOD: (PRIMARY) 1906-1971  
(OVER-ALL) 1854-1971

SEPTEMBER

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.6	1.2
	NO PCP	.0	.0	.6	.6	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.6	1.2	.0	.0	.0	.0	.0	.0	.6	
2<5	PCP	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0	.6	2.9
	NO PCP	.0	.0	.6	.7	1.6	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.6	.7	1.6	.6	.0	.0	.0	.0	.6	
5<10	PCP	.0	.6	.0	.6	2.0	.3	.0	.0	.0	.0	.3	3.5
	NO PCP	.0	4.4	6.3	12.4	2.6	.6	.6	.0	.0	.0	.6	
	TOT %	.0	4.9	6.3	12.9	4.7	.9	.6	.6	.0	.0	.6	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.7	5.4	22.7	26.7	3.1	2.5	1.2	.0	.0	1.2	63.4	
	TOT %	.7	5.4	22.7	26.7	3.1	2.5	1.2	.0	.0	1.2	63.4	
TOT OBS													172
TOT PCT		.7	10.3	30.1	41.6	9.3	3.9	1.7	.6	.0	1.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.2	.5	.0	.0	.0	.0	.0	.0	.6	
	11-21	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.3	.6	.0	.0	.0	.0	.0	.0	.9	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.6	.3	.0	.0	.0	.0	.9	
	11-21	.0	.0	.3	.4	.2	.0	.0	.0	.0	.0	.9	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.3	.4	.8	.3	.0	.0	.0	.0	1.8	
5<10	0-3	.0	.2	.3	.5	.0	.3	.0	.0	.0	.3	1.5	14.2
	4-10	.0	2.9	3.5	4.7	2.4	.2	.3	.3	.0	.0	14.2	
	11-21	.0	.0	1.0	3.2	.3	.0	.0	.0	.0	.0	4.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	3.0	4.7	6.4	2.7	.3	.3	.3	.0	.3	20.2	
10+	0-3	.4	1.0	1.5	1.4	.3	.2	.5	.3	.0	2.1	7.5	55.4
	4-10	.5	5.4	21.3	20.9	4.0	1.9	1.5	.0	.0	.0	55.4	
	11-21	.0	.0	5.9	6.9	.2	.9	.0	.0	.0	.0	13.9	
	22+	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	
	TOT %	.8	6.4	28.8	29.4	4.4	2.9	2.0	.3	.0	2.1	77.1	
TOT OBS													332
TOT PCT		.8	9.4	34.1	38.7	8.0	3.7	2.3	.6	.0	2.4	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1966-1971  
(OVER-ALL) 1854-1971

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET/NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	4.8	9.5	4.8	.0	.0	.0	.0	.0	19.0	81.0	21
06009	.0	.0	4.3	.0	13.0	8.7	8.7	.0	.0	.0	34.8	65.2	23
12015	.0	.0	.0	.0	11.1	.0	.0	.0	.0	.0	11.1	88.9	27
18021	.0	.0	.0	.0	11.5	3.8	7.7	.0	.0	.0	23.1	76.9	26
TOT	0	0	2	2	10	3	4	0	0	0	21	76	97
PCT	.0	.0	2.1	2.1	10.3	3.1	4.1	.0	.0	.0	21.6	78.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	1.6	3.1	23.4	71.9	64
06009	.0	.0	2.3	2.3	21.8	73.6	87
12015	.0	.0	.0	1.4	12.2	86.5	74
18021	.0	.0	.0	.9	21.2	77.9	113
TOT	0	0	3	6	67	262	338
PCT	.0	.0	.9	1.8	19.8	77.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET/NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	5.3	15.8	5.3	78.9	19
06009	.0	4.8	9.5	28.6	61.9	21
12015	.0	.0	.0	11.5	88.5	26
18021	.0	.0	.0	24.0	76.0	25
TOT	0	2	5	16	70	91
PCT	.0	2.2	5.5	17.6	76.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	1.4	7.2	2.2	.0	13	10.9
80/84	.0	.0	.0	.0	4.3	44.9	31.9	2.9	116	84.1
75/79	.0	.0	.0	.0	.0	1.4	2.2	.7	6	4.3
70/74	.0	.0	.0	.0	.0	.0	.0	.7	1	.7
TOTAL	0	0	0	0	8	74	30	6	138	100.0
PCT	.0	.0	.0	.0	5.8	53.6	36.2	4.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	1.8	5.6	1.8	.2	.7	.0	.0	.7
80/84	.4	8.7	24.3	37.1	6.9	3.6	.7	.7	.0	1.4
75/79	.0	.7	.7	2.2	.0	.7	.0	.0	.0	.0
70/74	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0
TOT	.4	10.1	27.0	44.9	8.7	4.5	1.4	.7	.0	2.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00003	86	85	84	82	78	75	75	81.6	103
06009	92	91	88	83	79	77	77	83.6	207
12015	84	83	83	82	80	77	77	82.0	109
18021	85	84	83	82	80	75	74	81.5	194
TOT	92	89	86	82	79	77	74	82.3	613

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	58.6	37.9	3.4	79	29
06009	.0	.0	9.4	68.8	21.9	.0	75	32
12015	.0	.0	6.1	57.6	33.3	3.0	79	33
18021	.0	.0	6.1	36.7	49.0	8.2	81	49
TOT	0	0	8	76	59	6	79	143

## SEPTEMBER

PERIOD: (PRIMARY) 1906-1971  
(OVER-ALL) 1854-1971AREA 0004 NORTHWEST JAVA SEA  
3.05 106.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	TOT	% FOG	% FOG
6	.0	.0	.0	.7	1	.0	.7
5	.0	.0	.0	.7	1	.0	.7
4	.0	.0	.0	.7	1	.0	.7
3	.0	.0	.0	.7	1	.0	.7
2	.0	.0	3.4	4.8	12	.0	5.3
1	.0	.0	6.2	.0	9	.0	6.2
0	.0	.0	29.7	.7	44	.0	30.3
-1	.0	2.1	26.9	.0	42	.0	29.0
-2	.0	.7	10.3	.7	17	.0	11.7
-3	.0	.7	3.4	1.4	8	.0	5.5
-4	.0	2.1	.7	.0	4	.0	2.8
-5	.7	1.4	.0	.0	3	.0	2.1
-6	.7	.0	.7	.0	2	.0	1.4
TOTAL	2	10	118	15	145	.0	145
PCT	1.4	6.9	81.4	10.3	100.0		100.0

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	12.5	.0	.0	.0	.0	12.5	.0	19.3	9.1	.0	.0	.0	28.4
3-4	.0	5.7	2.3	.0	.0	.0	8.0	.0	5.1	9.1	2.3	.0	.0	16.5
5-6	.0	3.4	1.7	.0	.0	.0	5.1	.0	1.1	5.7	.0	.0	.0	6.8
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	21.6	4.0	.0	.0	.0	25.6	.0	25.6	23.9	2.3	.0	.0	51.7

PERIOD: (OVER-ALL) 1963-1971

SEPTEMBER

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.5E

TABLE 16 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	2.3	.0	.0	.0	.0	2.3
1-2	.0	6.8	.0	.0	.0	.0	6.8	.0	.0	.0	.0	.0	.0	.0
3-4	.0	2.3	.0	.0	.0	.0	2.3	.0	2.3	.0	.0	.0	.0	2.3
5-6	.0	.0	1.7	.0	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	9.1	1.7	.0	.0	.0	10.8	.0	4.3	.0	.0	.0	.0	4.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	2.3	.0	.0	.0	.0	2.3	
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	2.3	.0	.0	.0	.0	2.3	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	2.3	.0	.0	.0	.0	2.3	.0	2.3	.0	.0	.0	.0	2.3	97.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.4	4.4	.0	.0	.0	.0	8.8	
1-2	.0	37.8	8.9	.0	.0	.0	46.7	
3-4	.0	17.8	11.1	7.2	.0	.0	31.1	
5-6	.0	4.4	8.9	.0	.0	.0	13.3	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.4	64.4	28.9	7.2	.0	.0	100.0	45

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.3	36.8	31.6	9.2	2.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	82	3
6-7	.0	1.3	5.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
10-11	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	2
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDEX	2.6	5.3	2.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	2
TOTAL	3	34	30	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	78	3
PCT	3.9	44.7	39.5	9.2	2.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1907-1972  
(OVER-ALL) 1854-1972

OCTOBER

AREA 0004 NORTHWEST JAVA SEA  
3.6S 106.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
N	20.5	.0	.0	.0	.0	.0	.0	20.5	.0	.0	.0	.0	13.4	.0	84.1
NE	.0	5.9	.0	.0	.0	.0	.0	5.9	1.5	27.9	.0	.0	14.7	.0	90.0
E	.0	3.6	.0	.0	.0	.0	.0	3.6	3.6	5.4	2.4	.0	1.2	.0	85.6
SE	2.3	1.1	.0	.0	.0	.0	.0	3.4	.0	2.3	.0	.0	3.4	.0	90.8
S	.0	.0	.0	.0	.0	.0	.0	.0	5.8	.0	11.6	.0	.0	.0	82.6
SW	8.0	4.0	.0	.0	.0	.0	.0	12.0	8.0	.0	.0	.0	.0	.0	80.0
W	15.4	7.7	.0	.0	.0	.0	.0	23.1	.0	7.7	.0	.0	.0	.0	69.2
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.5	.0	.0	.0	.0	89.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	21.4	.0	.0	7.1	.0	71.4
TOT PCT	3.0	2.4	.0	.0	.0	.0	.0	5.4	1.8	7.2	1.8	.0	4.2	.0	79.6
TOT OBS:	167														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
00003	2.9	5.7	.0	.0	.0	.0	.0	8.6	2.9	2.9	.0	.0	2.9	.0	82.9
06009	8.8	2.9	.0	.0	.0	.0	.0	11.8	2.9	.0	2.9	.0	5.9	.0	76.5
12015	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.8	4.8	.0	2.4	.0	88.1
18021	1.5	3.0	.0	.0	.0	.0	.0	4.5	1.5	13.4	.0	.0	6.0	.0	74.6
TOT PCT TOT OBS:	2.8 178	2.8	.0	.0	.0	.0	.0	5.6	1.7	6.7	1.7	.0	4.5	.0	79.8

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	.7	2.7	.5	.0	.0	.0		3.9	6.3	1.2	.0	2.6	5.3	3.5	.0	3.6	8.8
NE	1.5	4.3	1.7	.0	.0	.0		7.4	7.5	5.3	.0	3.6	2.3	8.4	.0	12.4	11.8
E	2.9	15.7	3.4	.0	.0	.0		22.1	7.3	29.1	33.3	20.7	23.5	20.8	25.0	23.3	14.7
SE	2.2	19.2	4.6	.0	.0	.0		26.0	7.8	23.8	25.0	27.1	37.9	32.9	25.0	22.3	14.1
S	2.9	9.2	3.0	.2	.0	.0		15.3	7.3	12.4	25.0	18.2	20.5	20.1	.0	9.7	12.4
SW	1.9	4.9	1.9	.2	.0	.0		8.8	7.4	13.5	16.7	15.0	2.3	3.7	.0	7.1	9.4
W	.5	2.4	1.4	.2	.0	.0		4.4	8.7	3.5	.0	4.3	1.5	2.8	8.3	4.2	10.0
NW	.4	2.3	.2	.0	.0	.0		2.9	6.8	2.9	.0	1.7	.8	1.2	41.7	3.8	4.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	9.1							9.1	.0	8.2	.0	6.8	6.1	6.5	.0	13.4	14.1
TOT OBS	131	359	98	3	0	0		591	6.8	85	6	117	66	107	6	119	85
TOT PCT	22.2	60.7	16.6	.5	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	2.7	1.2	.1	.0	.0		3.9	6.3	1.1	3.6	3.3	5.9		
NE	3.9	3.1	.4	.0	.0		7.4	7.5	4.9	3.1	8.0	12.1		
E	11.2	10.3	.6	.0	.0		22.1	7.3	29.4	21.7	21.0	19.7		
SE	11.4	13.9	.8	.0	.0		26.0	7.8	23.9	31.0	32.5	18.9		
S	8.8	5.4	1.0	.0	.0		15.2	7.3	13.2	19.0	19.0	10.8		
SW	4.9	3.4	.4	.0	.0		8.8	7.4	13.7	10.4	3.5	8.1		
W	7.1	1.9	.4	.0	.0		4.4	8.7	3.3	3.3	3.1	6.6		
NW	1.6	1.1	.2	.0	.0		2.9	6.8	2.7	1.4	3.3	4.2		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	9.1						9.1	.0	7.7	8.6	6.2	13.7		
TOT OBS	330	238	23	0	0	591		6.8	91	183	113	204		
TOT PCT	55.8	40.3	3.9	.0	.0		100.0		100.0	100.0	100.0	100.0		



PERIOD: (PRIMARY) 1907-1972  
(OVER-ALL) 1854-1972

OCTOBER

AREA 0004 NORTHWEST JAVA SEA  
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	7.7	18.7	59.3	14.3	.0	.0	.0	6.2	100.0	91
06009	6.6	12.0	59.6	21.3	.5	.0	.0	7.4	100.0	183
12015	6.2	19.3	59.8	15.0	.0	.0	.0	6.8	100.0	113
18021	13.7	11.9	59.8	14.2	1.0	.0	.0	6.5	100.0	204
TOT	94	77	359	98	3	0	0	6.8		591
PCT	9.1	14.0	60.7	16.6	.5	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	1.1	.0	.0	1.4		5.0
NE	2.8	1.4	3.5	.0		4.1
E	9.9	5.3	7.4	1.1		3.5
SE	4.2	10.2	10.2	2.1		4.3
S	1.1	2.8	3.9	5.3		4.5
SW	.4	1.4	1.8	8.5		6.7
W	.0	.0	2.8	1.4		6.6
NW	.4	.0	.0	1.4		6.6
VAR	.0	.0	.0	.0		.0
CALM	2.8	1.4	4.2	.0		3.6
TOT OBS	16	16	24	15	71	4.7
TOT PCT	22.5	22.5	33.8	21.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	499	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	1.1	
.0	.0	.0	.7	1.4	.0	.0	.0	.0	.0	5.6	
.0	.0	.0	2.1	2.5	.0	.0	.0	.0	.0	19.0	
.0	.0	.0	.4	3.2	.0	.0	.0	.0	.0	1.4	21.8
.0	.0	.0	1.1	4.5	1.4	.0	1.4	.0	.0	6.7	
.0	.0	.0	2.8	1.8	.0	1.4	.0	.0	.0	6.0	
.0	.0	.0	.0	.0	1.4	.7	.7	.0	.0	1.4	
.0	.0	.0	.0	.0	.0	.7	.7	.0	.0	.4	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	1.4	.0	1.4	.0	.0	.0	.0	4.2	
.0	.0	.0	.7	.8	.3	.3	.2	.0	.1	.47	71
.0	.0	.0	9.9	11.3	4.2	4.2	2.8	.0	1.4	66.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
= OR >5000	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
= OR >3500	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
= OR >2000	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
= OR >1000	21.9	23.3	23.3	23.3	23.3	23.3	23.3	23.3
= OR >600	28.8	31.5	32.9	32.9	32.9	32.9	32.9	32.9
= OR >300	28.8	31.5	32.9	32.9	32.9	32.9	32.9	32.9
= OR >150	28.8	31.5	32.9	32.9	32.9	32.9	32.9	32.9
= OR >0	28.8	31.5	32.9	32.9	32.9	32.9	32.9	32.9
TOTAL	21	23	24	24	24	24	24	24

TOTAL NUMBER OF OBS: 73

PCT FREQ NH <5/8: 67.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
6.4	17.9	21.6	14.1	7.7	14.1	6.4	3.8	7.7	.0	78

PERIOD: (PRIMARY) 1907-1972  
(OVER-ALL) 1954-1972

OCTOBER

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.6	
	TOT %	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.6	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.9	.9	.0	.6	.0	.0	.0	.0	.0	.6	3.0	
	TOT %	.9	.9	.0	.6	.0	.0	.0	.0	.0	.6	3.0	
2<5	PCP	.6	.0	.0	.0	.0	.0	.6	.0	.0	.0	1.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.6	.0	.0	.0	.0	.0	.6	.0	.0	.0	1.2	
5<10	PCP	.6	.6	.9	.9	.0	.9	.3	.0	.0	.0	4.2	
	NO PCP	3.0	1.9	7.9	11.4	4.3	.4	.3	.0	.0	1.8	31.1	
	TOT %	3.6	2.5	8.8	12.3	4.3	1.3	.6	.0	.0	1.8	35.3	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.7	6.7	15.6	13.2	6.0	5.1	2.7	2.8	.0	6.0	59.9	
	TOT %	.7	6.7	15.6	13.2	6.0	5.1	2.7	2.8	.0	6.0	59.9	
TOT OBS		5.8	10.2	25.0	26.0	10.3	7.5	3.4	2.8	.0	8.4	130.0	167
TOT PCT													

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.3	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.3	
1<2	0-3	.2	.5	.0	.0	.0	.0	.0	.0	.0	.3	1.0	
	4-10	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	
	11-21	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.5	.5	.0	.3	.0	.0	.0	.0	.0	.3	1.7	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.7	
	11-21	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.3	.0	.0	.3	.0	.0	.3	.0	.0	.0	1.0	
5<10	0-3	.2	.2	.7	.0	.3	.3	.2	.0	.0	1.0	2.7	
	4-10	1.7	1.4	4.3	6.2	2.3	.5	.7	.3	.0	.0	17.4	
	11-21	.2	.7	1.0	1.5	.5	.3	.2	.0	.0	.0	4.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	2.0	2.3	6.0	7.7	3.1	1.1	1.0	.3	.0	1.0	24.5	
10+	0-3	.2	.8	1.6	1.3	2.5	1.0	.3	.3	.0	7.7	15.8	
	4-10	1.4	5.7	14.8	13.4	5.6	3.3	1.5	1.9	.0	.0	47.7	
	11-21	.0	.7	3.1	2.9	1.1	.7	.3	.0	.0	.0	8.7	
	22+	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3	
	TOT %	1.6	7.1	19.5	17.6	9.2	4.9	2.5	2.3	.0	7.7	72.5	
TOT OBS		4.4	9.9	25.6	26.0	12.3	6.0	3.9	2.6	.0	9.1	100.0	298
TOT PCT													

OCTOBER

PERIOD: (PRIMARY) 1907-1972  
(OVER-ALL) 1854-1972AREA 0004 NORTHWEST JAVA SEA  
3.65 106.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	5.6	11.1	.0	.0	.0	.0	.0	15.7	83.3	18
06009	.0	.0	.0	25.0	16.7	.0	8.3	.0	.0	8.3	58.3	41.7	12
12015	.0	.0	.0	.0	15.8	5.3	5.3	5.3	.0	.0	31.6	68.4	19
18021	.0	.0	.0	10.7	3.6	7.1	3.6	3.6	.0	.0	28.6	71.4	28
TOT	0	0	0	7	8	3	3	2	0	1	24	93	77
PCT	.0	.0	.0	9.1	10.4	3.9	3.9	2.6	.0	1.3	31.2	68.8	100.0

TABLE 11

PERCENT FREQUENCY VS BY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<3	3<10	10+	TOTAL OBS
00003	.0	.0	.0	.0	24.3	75.5	40
06009	.0	.0	1.4	2.9	28.6	67.1	70
12015	.0	1.4	1.4	.0	21.6	75.7	74
18021	.0	.0	3.4	.9	27.6	68.1	116
TOT	0	1	4	3	80	219	309
PCT	.0	.3	1.9	1.0	25.9	70.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500+	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	5.6	11.1	83.3	18
06009	.0	.0	25.0	33.3	41.7	12
12015	.0	.0	.0	35.3	64.7	17
18021	.0	.0	11.5	19.2	69.2	26
TOT	0	0	7	17	49	73
PCT	.0	.0	9.6	23.3	67.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.7	.0	.0	.0	1	.7
85/89	.0	.0	.0	.0	2.9	8.0	.7	.0	16	11.6
80/84	.0	.0	.0	.0	2.2	23.3	48.6	5.1	116	94.1
75/79	.0	.0	.0	.0	.0	1.4	.0	2.2	5	3.6
TOTAL	0	0	0	0	8	82	68	16	138	100.0
PCT	.0	.0	.0	.0	5.8	59.7	49.3	7.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0
85/89	1.3	1.1	2.2	5.4	.7	.7	.0	.2	.0	.0
80/84	4.7	10.9	20.8	20.7	9.4	4.9	2.5	1.4	.0	8.7
75/79	.7	.0	.0	.7	.0	1.4	.0	.0	.0	.7
TOTAL	6.7	12.0	23.0	27.5	10.1	7.1	2.5	1.6	.0	9.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	87	85	82	79	75	75	82.3	91
06009	92	91	89	83	79	76	74	83.6	181
12015	87	86	85	82	80	76	76	82.3	109
18021	85	84	84	82	78	76	74	81.5	206
TOT	92	90	86	82	79	76	74	82.4	587

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	48.3	48.3	3.4	80	29
06009	.0	.0	18.5	48.1	25.9	7.4	78	27
12015	.0	.0	6.3	31.3	53.1	9.4	81	32
18021	.0	.0	1.7	31.7	60.0	6.7	81	60
TCT	0	0	8	56	74	10	80	148

PERIOD: (PRIMARY) 1907-1972  
(OVER-ALL) 1854-1972

OCTOBER

AREA 0001 NORTHWEST JAVA SEA  
3.65 106.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TEMP DIF	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
4	.0	.7	1.5	.7	4	.0	3.0
3	.0	.0	.7	.0	1	.0	.7
2	.0	3.7	2.2	.0	8	.0	5.9
1	.0	5.9	3.0	.0	12	.0	4.9
0	.0	17.0	1.5	.0	25	1.5	17.0
-1	.7	23.0	.0	.0	32	.0	23.7
-2	3.0	19.6	.0	.0	25	.0	18.5
-3	.7	6.7	.0	.0	10	.0	7.4
-4	.7	5.9	.0	.0	9	.0	6.7
-5	1.5	1.5	.0	.0	4	.0	3.0
-6	.0	.7	.0	.0	1	.0	.7
-7/-8	.7	2.2	.0	.0	4	.0	3.0
TOTAL	10	112	12	1	135	2	133
PCT	7.4	83.0	8.9	.7	100.0	1.5	98.5

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	.0	.0	.0	2.1
1-2	.0	1.6	.0	.0	.0	.0	1.6	.0	4.3	.0	.0	.0	.0	4.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.6	.0	.0	.0	.0	1.6	.0	6.4	.0	.0	.0	.0	6.4

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	6.4	.0	.0	.0	.0	6.4	.0	2.1	2.1	.0	.0	.0	4.3
1-2	.0	10.1	3.7	.0	.0	.0	13.8	2.1	19.4	2.7	.0	.0	.0	20.2
3-4	.0	6.4	.0	.0	.0	.0	6.4	.0	.0	2.7	.0	.0	.0	2.7
5-6	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	.0	.0	.0	2.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	.0	.0	2.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	22.9	3.7	.0	.0	.0	26.6	2.1	19.7	9.8	.0	.0	.0	31.4

PERIOD: (OVER-ALL) 1963-1972

OCTOBER

TABLE 18 (CONT)

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.3E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT):

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	2.1	.0	.0	.0	.0		2.1	.0	.0	.0	.0	.0	.0		2.1
1-2	.0	.0	.0	.0	.0	.0		.0	8.5	.0	.0	.0	.0	.0		8.5
3-4	1.6	.0	3.7	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
5-6	.0	.0	2.1	.0	.0	.0		2.1	.0	.0	.0	.0	.0	.0		.0
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
8-9	.0	.0	.0	.0	.0	.0		.0	.0	2.1	.0	.0	.0	.0		2.1
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	1.6	2.1	5.9	.0	.0	.0		9.5	2.7	8.5	2.1	.0	.0	.0		13.3

HGT	M							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
1-2	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
3-4	.0	.0	2.1	.0	.0	.0		2.1	.0	.0	.0	.0	.0	.0		.0	.5
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
TOT PCT	.0	.0	2.1	.0	.0	.0		2.1	.0	.5	.0	.0	.0	.0		.5	91.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	10.4	12.5	2.1	.0	.0	.0	25.0	
1-2	2.1	41.7	6.3	.0	.0	.0	50.0	
3-4	2.1	6.3	8.3	.0	.0	.0	16.7	
5-6	.0	2.1	2.1	.0	.0	.0	4.2	
7	.0	.0	4.2	.0	.0	.0	4.2	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	14.6	62.5	22.9	.0	.0	.0	100.0	48

PERIOD: (OVER-ALL) 1969-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	20.0	25.7	15.7	2.9	2.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	54	2
6-7	.0	1.4	2.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	3
8-9	.0	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	7
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
12-13	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	3
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	14.3	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	0
TOTAL	24	27	14	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	2
PCT	34.3	38.6	20.0	2.9	4.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

## NOVEMBER

PERIOD: (PRIMARY) 1905-1971  
(OVER-ALL) 1957-1971AREA 0004 NORTHWEST JAVA SEA  
3.6S 106.6E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER PRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE MAZE	SPRAY BLWG DUST	NO SIG WEA
N	8.7	8.7	.0	.0	.0	.0	17.4	.0	15.9	.0	.0	5.8	.0	63.8
NE	3.9	11.8	.0	.0	.0	.0	13.7	.0	13.7	.0	.0	.0	.0	72.5
E	.0	.0	6.7	.0	.0	.0	6.7	6.7	.0	.0	.0	.0	.0	86.7
SE	6.9	5.7	2.3	.0	.0	.0	14.9	.0	4.6	.0	.0	.0	.0	80.5
S	3.1	5.3	4.6	.0	.0	.0	13.0	5.3	6.7	.0	.0	.0	.0	74.8
SW	5.9	4.7	2.4	.0	.0	.0	13.0	.6	11.2	.0	.0	.0	.0	77.5
W	7.9	4.5	.0	.0	.0	.0	12.4	.0	9.0	.0	.0	.0	.0	78.7
NW	2.1	8.3	.0	.0	.0	.0	10.4	.0	2.1	.0	.0	8.3	.0	79.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	6.3	.0	.0	.0	.0	6.3	6.3	12.5	.0	.0	.0	.0	75.0
TOT PCT	4.7	5.7	2.1	.0	.0	.0	12.5	2.1	8.9	.0	.0	1.0	.0	76.6
TOT OBS:	192													

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00003	2.9	11.8	.0	.0	.0	.0	.0	14.7	5.9	.0	.0	.0	2.9	.0	.0	76.5
06009	7.3	9.8	.0	.0	.0	.0	.0	17.1	4.9	2.4	.0	.0	.0	.0	.0	75.0
12015	1.9	.0	5.7	.0	.0	.0	.0	7.5	.0	9.4	.0	.0	.0	.0	.0	83.0
18021	7.1	4.3	1.4	.0	.0	.0	.0	12.9	.0	17.1	1.4	.0	1.4	.0	.0	70.0
TOT PCT TOT OBS:	5.1 198	5.6	2.0	.0	.0	.0	.0	12.6	2.0	9.1	.5	.0	1.0	.0	.0	75.8

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.6	2.8	.6	.0	.0	.0		5.0	5.4		6.0	8.3	2.0	3.8	4.7	12.5	0.4	6.9
NE	2.1	5.0	.2	.0	.0	.0		7.3	5.4		5.1	8.3	5.6	6.1	8.2	.0	9.3	9.2
E	2.1	5.5	.7	.0	.0	.0		8.3	6.2		11.1	5.6	6.4	8.3	11.4	12.5	6.8	6.3
SE	4.1	8.2	1.4	.0	.0	.0		13.7	5.9		13.9	22.2	15.6	15.2	16.1	18.8	9.7	10.9
S	3.7	11.4	1.2	.2	.0	.0		16.5	6.0		13.0	11.1	15.0	27.3	22.9	31.3	12.9	10.3
SW	3.5	12.1	3.9	.1	.0	.0		19.6	7.6		23.2	22.2	21.8	22.0	13.1	.0	21.0	19.0
W	1.1	8.2	1.5	.1	.0	.0		10.9	7.6		14.2	.0	12.4	3.0	8.9	.0	11.9	14.9
NW	1.2	3.6	.7	.0	.0	.0		5.6	6.6		9.9	11.1	5.2	3.8	4.4	.0	5.1	5.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	13.1							13.1	.0		3.6	11.1	16.0	10.6	10.3	25.0	16.9	17.2
TOT OBS	197	343	61	2	0	0	603		5.7		53	9	125	66	107	8	118	87
TOT PCT	32.7	56.9	10.1	.3	.0	.0	100.0				100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	3.9	1.2	.0	.0	.0			5.0	5.4		6.3	2.6	5.2	6.6
NE	5.2	1.9	.1	.0	.0			7.3	5.4		3.4	5.8	7.6	9.3
E	5.2	2.9	.2	.0	.0			8.3	6.2		10.6	7.1	11.5	6.6
SE	8.8	4.8	.1	.0	.0			13.7	5.9		14.7	15.4	16.3	10.2
S	11.7	4.6	.2	.0	.0			16.5	6.0		12.8	19.2	23.5	11.8
SW	9.2	9.6	.8	.0	.0			19.6	7.6		23.1	21.9	12.2	20.1
W	4.8	5.7	.4	.0	.0			10.9	7.6		12.8	9.2	8.3	13.2
NW	3.2	2.2	.2	.0	.0			5.6	6.6		10.1	4.7	4.1	5.1
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	13.1							13.1	.0		4.3	14.1	11.3	17.1
TOT OBS	392	199	12	0	0	603			5.7		92	191	115	205
TOT PCT	65.0	33.0	2.0	.0	.0			100.0			100.0	100.0	100.0	100.0

NOVEMBER

PERIOD: (PRIMARY) 1905-1971  
(OVER-ALL) 1857-1971

Area 0004 NORTHWEST JAVA SEA  
3.6S 106.0E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	4.3	16.3	71.7	7.6	.0	.0	.0	4.0	100.0	92
06009	14.1	20.4	56.5	8.9	.0	.0	.0	5.4	100.0	191
12015	11.3	27.0	53.0	8.7	.0	.0	.0	5.1	100.0	115
18021	17.1	16.1	52.7	13.2	1.0	.0	.0	6.0	100.0	205
TOT	79	118	343	61	2	0	0	5.7		603
PCT	13.1	19.6	56.9	10.1	.3	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL CBS	MEAN CLOUD COVER
N	1.8	.8	2.8	.0		4.1
NE	.5	.0	1.8	3.1		6.8
E	2.3	.0	3.4	1.0		5.1
SE	3.9	2.6	3.1	1.0		3.7
S	2.3	2.6	12.4	2.8		5.7
SW	1.5	5.7	10.3	6.4		5.7
W	2.1	2.3	5.9	3.9		5.8
NW	.0	1.5	2.3	.3		5.1
VAR	.0	.0	.0	.0		.0
CALM	1.0	2.1	4.1	2.1		5.1
TOT OBS	15	17	45	20	97	5.2
TOT PCT	15.5	17.5	46.4	20.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/M) >4/8)  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000 149	150 294	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000- ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.4
NE	.0	.0	.0	.0	1.0	1.0	.0	.0	.0	.0	3.4
E	.0	.0	.0	.0	1.0	.7	.8	.0	.0	.0	4.9
SE	1.0	.7	.0	.0	.0	.0	1.5	.0	.0	.0	8.0
S	.0	.0	1.0	1.8	.8	.0	.8	.0	.0	.0	16.0
SW	.0	.0	.0	3.4	3.4	2.1	.0	.0	.0	.0	15.2
W	.8	.0	.0	.0	3.1	.0	1.0	.0	.0	.0	9.3
NW	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	3.1	.0	.0	.0	.0	.0	6.2
TOT OBS	2	7	1	5	12	3	4	0	0	0	70
TOT PCT	2.1	.0	1.0	5.2	12.4	3.1	4.1	.0	.0	.0	72.2

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	• OR >10	• OR >5	• OR >2	• OR >1	• OR >1/2	• OR >1/4	• OR >5000	• OR >0
• OR >6500	.0	.0	.0	.0	.0	.0	.0	.0
• OR >5000	.0	.0	.0	.0	.0	.0	.0	.0
• OR >3500	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
• OR >2000	5.0	7.9	7.9	7.9	7.9	7.9	7.9	7.9
• OR >1000	13.9	19.8	19.8	19.8	19.8	19.8	19.8	19.8
• OR >600	15.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8
• OR >300	15.8	25.7	25.7	25.7	25.7	25.7	25.7	25.7
• OR >150	16.8	25.7	25.7	25.7	25.7	25.7	25.7	25.7
• OR >0	16.8	26.7	27.7	27.7	27.7	27.7	27.7	27.7
TOTAL	17	27	28	28	28	26	28	28

TOTAL NUMBER OF OBS: 101

PCT FREQ NM <5/8: 72.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
6.8	9.7	28.2	15.5	11.7	8.7	4.9	4.9	7.8	1.9	103

PERIOD: (PRIMARY) 1905-1971  
(OVER-ALL) 1857-1971

NOVEMBER

AREA 0004 NORTHWEST JAVA SEA  
3.05 106.0E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.3	.3	.5	.0	.0	.0	.0	1.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.3	.3	.5	.0	.0	.0	.0	1.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.5	.0	.0	.0	.0	.0	.5	.0	.5	.0	1.0	
	TOT %	.5	.0	.0	.0	.0	.0	.5	.0	.5	.0	1.0	
2<5	PCP	.5	.0	.0	1.0	.0	.5	.0	.0	.0	.0	2.1	
	NO PCP	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.5	
	TOT %	.5	.0	.0	1.0	.5	.5	.0	.0	.0	.0	2.6	
5<10	PCP	.8	.8	.0	.3	1.0	.8	.4	.7	.0	.5	3.2	
	NO PCP	3.3	1.2	2.2	3.5	3.6	4.4	4.2	2.1	.0	2.1	26.6	
	TOT %	4.0	2.0	2.2	3.8	4.7	5.2	4.6	2.7	.0	2.6	31.8	
10+	PCP	.3	.3	.5	.1	.9	1.0	1.0	.0	.0	.0	4.2	
	NO PCP	3.6	4.4	5.1	6.1	10.7	14.7	6.0	3.0	.0	5.7	59.4	
	TOT %	3.9	4.7	5.6	6.3	11.6	15.8	7.0	3.0	.0	5.7	63.5	
TOT OBS													192
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SFD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.2	.0
	4-10	.0	.0	.0	.0	.2	.5	.0	.0	.0	.0	.6	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.2	.3	.5	.0	.0	.0	.0	1.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.3	.0	.0	.0	.0	.0	.0	.3	.0	.0	.6	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.3	.0	.0	.0	.0	.0	.0	.3	.0	.0	.6	.0
2<5	0-3	.3	.0	.0	.6	.3	.0	.0	.0	.0	.0	1.3	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.3	.0	.3	.0	.0	.0	.0	.6	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.3	.0	.0	1.0	.3	.3	.0	.0	.0	.0	1.9	.0
5<10	0-3	.4	.6	.3	.0	.6	.3	.0	.3	.0	2.3	4.9	.0
	4-10	1.8	.6	1.1	1.7	2.3	3.2	2.9	1.3	.0	.0	14.9	.0
	11-21	.3	.0	.2	.8	.0	.3	.2	.1	.0	.0	1.9	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	2.5	1.2	1.5	2.5	2.9	3.9	3.2	1.7	.0	2.3	21.8	.0
10+	0-3	1.6	2.3	1.5	2.8	1.8	1.5	.9	.6	.0	11.0	24.0	.0
	4-10	1.5	4.2	4.3	6.8	10.2	8.8	5.0	1.4	.0	.0	42.9	.0
	11-21	.3	.0	.3	.0	1.4	3.8	1.5	.4	.0	.0	7.8	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	3.4	6.5	6.1	9.6	13.4	14.2	7.5	3.0	.0	11.0	74.7	.0
TOT OBS													308
TOT PCT													100.0



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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	180 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	5.3	5.3	10.5	.0	.0	.0	.0	21.1	78.9	19
06009	.0	.0	4.5	4.5	9.1	.0	4.5	.0	.0	.0	22.7	77.3	22
12015	.0	.0	.0	3.3	6.7	.0	6.7	.0	.0	.0	16.7	83.3	30
18021	6.5	.0	.0	6.5	22.6	3.2	6.5	.0	.0	.0	45.2	54.8	31
TOT	2	0	1	5	12	3	5	0	0	0	28	74	102
PCT	2.0	.0	1.0	4.9	11.8	2.9	4.9	.0	.0	.0	27.5	72.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	1.9	1.9	15.4	80.8	52
06009	.0	2.5	.0	1.2	14.8	81.5	81
12015	.0	.0	.0	1.3	19.7	78.9	76
18021	.0	1.0	1.0	2.9	32.4	62.9	105
TOT	0	3	2	6	69	234	314
PCT	.0	1.0	.6	1.9	22.0	74.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	5.3	15.8	78.9	19
06009	.0	4.5	9.1	19.6	77.3	22
12015	.0	.0	3.3	19.3	83.3	30
18021	6.7	6.7	13.3	33.3	59.3	30
TOT	2	3	8	20	73	101
PCT	2.0	3.0	7.9	19.8	72.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	2.1	2.8	1.4	.7	10	6.9
80/84	.0	.0	.0	.0	.7	31.7	48.3	4.8	124	85.5
75/79	.0	.0	.0	.0	.7	3.4	2.8	.7	10	6.9
70/74	.0	.0	.0	.0	.0	.0	.0	.7	1	.7
TOTAL	0	0	0	0	4	31	77	13	143	100.0
PCT	.0	.0	.0	.0	2.8	35.2	53.1	9.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.3	1.0	1.6	.5	1.4	.7	.0	.0	1.4
7.4	5.0	4.8	8.3	13.3	22.4	11.4	6.7	.0	6.2
.0	.7	.7	.9	2.1	1.9	.5	.2	.0	.0
.0	.0	.0	.0	.0	.0	.7	.0	.0	.0
7.4	6.0	6.6	10.7	15.9	29.7	13.3	6.9	.0	7.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	87	85	82	78	76	76	82.1	90
06009	94	92	88	83	79	75	74	83.1	195
12015	89	87	85	82	79	77	77	82.3	112
18021	88	86	84	82	78	75	73	81.6	201
TOT	94	89	86	82	79	76	73	82.3	598

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	3.8	36.5	42.3	15.4	82	26		26
06009	.0	.0	3.8	34.6	37.7	3.8	80	26		26
12015	.0	.0	2.6	34.2	60.5	2.6	80	38		38
18021	.0	.0	3.3	31.7	53.3	11.7	82	60		60
TOT	0	0	5	51	81	13	81	150		150

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TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	WU FOG
4	.0	.0	.0	.6	.6	2	.0	1.3
3	.0	.0	.0	.6	.0	1	.0	.6
2	.0	.0	2.5	1.9	.0	7	.0	4.4
1	.0	.0	8.8	1.5	.0	10	.0	10.3
0	.0	.0	11.9	.6	.0	19	.6	11.3
-1	.0	.0	20.0	.6	.0	33	.0	20.6
-2	.0	3.8	21.9	.0	.0	41	.0	25.6
-3	.0	3.8	6.9	.0	.0	17	.0	10.6
-4	.0	5.6	3.1	.0	.0	14	.0	8.8
-5	.6	1.3	1.3	.0	.0	5	.0	3.1
-6	.0	.0	.6	.0	.0	1	.0	.6
-7/-8	.6	1.3	.0	.0	.0	3	.0	1.9
-11/-13	.6	.0	.0	.0	.0	1	.0	.6
TOTAL	3	25	123	8	1	160	1	159
PCT	1.9	15.6	76.9	5.0	.6	100.0	.6	99.4

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TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	3.0	.0	.0	.0	.0	3.0
1-2	.0	3.0	.0	.0	.0	.0	3.0	.0	.5	.0	.0	.0	.0	.5
3-4	1.5	.0	.0	.0	.0	.0	1.5	.5	.0	.0	.0	.0	.0	.5
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.5	3.0	.0	.0	.0	.0	4.5	.5	3.5	.0	.0	.0	.0	4.0

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	5.0	.0	.0	.0	.0	5.0	2.0	.0	.0	.0	.0	.0	2.0
1-2	.0	3.5	.0	.0	.0	.0	3.5	.0	1.5	2.0	.0	.0	.0	3.5
3-4	.0	.0	2.0	.0	.0	.0	2.0	.0	.5	.0	.0	.0	.0	.5
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	8.5	2.0	.0	.0	.0	10.5	2.0	2.0	2.0	.0	.0	.0	6.0

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	2.0	.0	.0	.0	.0	.0	2.0	2.0	8.0	.0	.0	.0	.0	10.0
1-2	.0	11.5	.0	.0	.0	.0	11.5	.5	12.0	.0	.0	.0	.0	12.5
3-4	.0	1.5	1.5	.0	.0	.0	3.0	.0	8.0	2.5	.0	.0	.0	10.5
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.0	13.0	1.5	.0	.0	.0	16.5	2.5	28.0	4.5	.0	.0	.0	33.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
41	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	1.5	5.5	2.0	.0	.0	.0	9.0	.0	2.5	2.0	.0	.0	.0	2.5	2.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	2.0	2.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.5	5.5	2.0	.0	.0	.0	9.0	.0	2.5	2.0	.0	.0	.0	4.5	68.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	19.6	15.7	.0	.0	.0	.0	35.3	
1-2	2.0	27.3	5.9	.0	.0	.0	45.1	
3-4	2.0	11.6	5.9	.0	.0	.0	19.6	
5-6	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	23.5	64.7	11.8	.0	.0	.0	100.0	51

PERIOD: (OVER-ALL) 1969-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
4-6	23.5	29.4	12.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	56
6-7	.0	1.2	3.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4
8-9	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
>13	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
INDET	16.5	3.5	4.7	2.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	23
TOTAL	34	29	18	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89
PCT	40.0	34.1	21.2	4.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1856-1971

DECEMBER

AREA 0004 NORTHWEST JAVA SEA  
3.6S 106.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	
N	5.0	15.0	.0	.0	.0	.0	.0	20.0	.0	5.0	.0	.0	.0	.0	75.0
NE	.0	5.6	.0	.0	.0	.0	.0	5.6	11.1	11.1	.0	.0	.0	.0	72.2
E	.0	.0	.0	.0	.0	.0	.0	.0	18.2	.0	.0	.0	.0	.0	81.8
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.9	.0	38.7	.0	48.4
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.8	14.8	.0	.0	.0	70.4
SW	14.0	1.8	.0	.0	.0	.0	.0	15.8	.0	26.3	.0	.0	.0	.0	68.4
W	21.3	7.4	4.3	.0	.0	.0	.0	28.7	8.5	13.8	.0	.0	.0	.0	59.0
NW	10.4	5.2	2.1	.0	.0	.0	.0	17.6	4.1	8.3	.0	.0	.0	.0	72.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	10.0	10.0	.0	.0	.0	.0	80.0
TOT PCT	9.0	5.5	1.4	.0	.0	.0	.0	15.2	4.8	10.3	1.4	.0	2.1	.0	69.7
TOT OBS	145														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	
00003	5.6	2.8	2.8	.0	.0	.0	.0	11.1	8.3	.0	.0	.0	.0	.0	80.0
06009	.0	13.5	.0	.0	.0	.0	.0	13.5	.0	.0	2.7	.0	2.7	.0	81.1
12015	12.2	.0	2.4	.0	.0	.0	.0	12.2	.0	17.1	2.4	.0	2.4	.0	68.3
18021	14.9	6.4	.0	.0	.0	.0	.0	21.3	8.5	19.1	.0	.0	2.1	.0	57.4
TOT PCT	8.7	5.6	1.2	.0	.0	.0	.0	14.9	4.3	9.9	1.2	.0	1.9	.0	70.8
TOT OBS	161														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	1.5	7.8	1.6	.1	.0	.0		11.0	7.0	4.2	20.0	9.2	12.3	15.6	8.3	13.8	8.5
NE	1.5	2.8	.1	.0	.0	.0		4.4	5.1	2.1	.0	1.1	5.1	3.8	.0	10.2	4.3
E	1.2	1.0	.0	.0	.0	.0		2.3	4.2	2.1	20.0	.0	2.2	.9	.0	6.1	1.2
SE	.7	1.6	.1	.0	.0	.0		2.3	4.9	.0	.0	1.4	5.8	4.2	16.7	1.5	.0
S	2.2	3.1	.8	.0	.0	.0		5.8	5.1	2.4	.0	4.1	13.0	7.5	.0	5.9	3.0
SW	2.5	8.8	2.7	.0	.0	.0		14.1	7.2	12.8	.0	14.1	10.9	13.9	45.8	12.8	18.3
W	3.5	13.4	3.6	.3	.0	.0		20.8	7.5	24.3	10.0	30.2	15.9	17.2	20.8	15.1	22.0
NW	2.7	20.9	6.0	.8	.0	.0		30.4	8.4	43.8	30.0	35.6	27.5	21.7	8.3	25.5	34.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	8.9							8.9	.0	8.3	20.0	4.3	7.2	15.1	.0	8.2	8.5
TOT OBS	131	315	78	6	0	0	530		6.6	72	5	92	69	106	6	98	82
TOT PCT	24.7	59.4	14.7	1.1	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-6	7-16	17-27	28-40	41+						00	03	06	12	15	18	21
N	6.2	4.6	.2	.0	.0			11.0	7.0	5.2	10.6	15.2	11.4				
NE	3.3	1.1	.0	.0	.0			4.4	5.1	1.9	2.8	3.6	7.5				
E	1.8	.5	.0	.0	.0			2.3	4.2	3.2	.9	.9	3.9				
SE	2.0	.3	.0	.0	.0			2.3	4.9	.0	3.3	4.9	.8				
S	4.7	.9	.2	.0	.0			5.8	5.1	2.3	7.9	7.1	4.6				
SW	8.2	4.9	1.0	.0	.0			14.1	7.2	12.0	12.7	15.6	15.3				
W	10.7	9.0	.9	.1	.0			20.8	7.5	23.4	24.1	17.4	18.8				
NW	12.5	16.2	1.6	.1	.0			30.4	8.4	42.9	32.1	21.0	29.4				
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0				
CALM	8.9							8.9	.0	9.1	5.6	14.3	8.3				
TOT OBS	309	199	21	1	0	530			6.6	77	161	112	180				
TOT PCT	58.3	37.5	4.0	.2	.0			100.0		100.0	100.0	100.0	100.0				

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00E03	9.1	20.8	49.4	16.2	2.6	.0	.0	7.0	100.0	77
06E09	7.6	13.0	64.6	15.5	1.2	.0	.0	7.1	100.0	161
12E15	14.3	17.9	59.4	12.5	.0	.0	.0	5.6	100.0	112
18E21	8.3	15.0	61.7	13.9	1.1	.0	.0	6.6	100.0	180
TOT	47	84	315	78	4	0	0	6.6		530
PCT	8.9	15.8	59.4	14.7	1.1	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	1.9	.0	1.9		6.0
NE	.0	1.9	1.9	.0		4.5
E	.0	.0	.0	1.9		8.0
SE	.0	.0	2.4	.0		6.8
S	.0	.0	1.4	2.8		7.2
SW	1.9	.0	8.5	5.7		6.5
W	1.9	1.9	9.9	8.5		6.1
NW	1.9	7.5	13.7	15.1		6.1
VAR	.0	.0	.0	.0		.0
CALM	.0	1.9	5.7	.0		5.5
TOT OBS	3	8	23	19	53	6.2
TOT PCT	5.7	15.1	43.4	35.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT.) NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.8	
.0	.0	.0	.0	.0	.0	.0	.0	1.9	.0	1.9	
.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.5	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.2	
.0	.0	.0	.5	2.8	.0	.0	.0	.0	.0	12.7	
.0	.0	.0	1.9	6.7	.0	.0	.0	.0	.0	14.2	
.0	.0	.0	7.5	7.5	3.8	.0	.0	.0	.0	19.3	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	5.7	
.0	.0	.0	7	9	2	1	0	1	0	33	53
.0	.0	.0	13.2	17.0	3.8	1.9	.0	1.9	.0	62.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>OR >6500	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
>OR >5000	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
>OR >3500	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
>OR >2000	5.5	9.1	9.1	9.1	9.1	9.1	9.1	9.1
>OR >1000	20.0	23.6	23.6	23.6	23.6	23.6	25.5	25.5
>OR >600	29.1	36.4	36.4	36.4	36.4	36.4	38.2	38.2
>OR >300	29.1	36.4	36.4	36.4	36.4	36.4	38.2	38.2
>OR >150	29.1	36.4	36.4	36.4	36.4	36.4	38.2	38.2
>OR >0	29.1	36.4	36.4	36.4	36.4	36.4	38.2	38.2
TOTAL	10	20	20	20	20	20	21	21

TOTAL NUMBER OF OBS: 55

PCT FREQ NH <5/8: 61.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
.0	10.0	16.7	16.7	18.3	6.7	11.7	5.0	15.0	60

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.2	.3	.0	.0	.0	.7	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.2	.3	.0	.0	.0	.7	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	2.1	.0	.0	.0	.0	.0	.0	.7	2.8
	TOT %	.0	.0	.0	2.1	.0	.0	.0	.0	.0	.0	.7	2.8
2<5	PCP	.3	.0	.0	.0	.0	.0	.0	.3	.0	.0	.7	
	NO PCP	.0	.3	.3	.0	.0	.0	.0	.7	.0	.0	1.4	
	TOT %	.3	.3	.3	.0	.0	.0	.0	1.0	.0	.0	2.1	
5<10	PCP	2.4	.3	.0	.0	.0	1.0	.7	3.1	.0	.0	7.6	
	NO PCP	6.2	2.9	1.4	1.4	1.7	2.1	2.8	7.9	.0	3.4	29.7	
	TOT %	8.6	3.1	1.4	1.4	1.7	3.1	3.4	11.0	.0	3.4	37.2	
10+	PCP	.0	.0	.0	.0	.0	.3	3.4	2.4	.0	.0	6.2	
	NO PCP	4.8	2.9	1.1	1.9	2.9	6.2	8.3	16.8	.0	2.8	31.0	
	TOT %	4.8	2.8	2.1	1.9	2.9	6.6	17.2	21.2	.0	2.8	57.2	
TOT OBS													
TOT PCT													
145													

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.3	.6	
	4-10	.2	.2	.0	.0	.0	.0	.0	.3	.0	.0	1.3	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.2	.0	1.0	.0	.0	.0	.3	.0	.3	1.9	
2<5	0-3	.0	.2	.2	.0	.0	.0	.0	.0	.0	.3	.6	
	4-10	.3	.2	.0	.0	.0	.2	.3	1.8	.0	.0	2.9	
	11-21	.0	.0	.0	.0	.0	.0	.2	.5	.0	.0	.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.3	.3	.2	.0	.0	.2	.6	2.2	.0	.3	4.2	
5<10	0-3	.6	.5	.3	.3	.2	.3	.3	.4	.0	1.6	4.8	
	4-10	2.4	1.0	.3	.2	.3	1.3	1.8	4.6	.0	.0	11.9	
	11-21	1.0	.0	.0	.2	.5	.0	.0	1.3	.0	.0	2.9	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	4.0	1.4	.6	.6	1.0	1.6	2.2	6.4	.0	1.6	19.6	
10+	0-3	1.0	1.9	1.0	.3	.5	1.9	3.5	3.0	.0	7.1	20.2	
	4-10	6.4	2.9	.6	.6	1.8	7.2	9.3	18.8	.0	.0	47.0	
	11-21	1.0	.0	.0	.0	.0	.7	1.7	2.7	.0	.0	6.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	8.3	4.8	1.6	.9	2.3	9.9	14.5	24.6	.0	7.1	74.0	
TOT OBS													
TOT PCT													
312													

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	21.1	19.3	5.3	.0	.0	.0	.0	42.1	57.9	19
06009	.0	.0	.0	.0	10.0	10.0	.0	.0	.0	.0	20.0	80.0	10
12015	.0	.0	.0	6.3	12.5	6.3	.0	.0	.0	.0	31.3	68.8	16
18021	.0	.0	.0	15.4	23.1	.0	.0	.0	7.7	.0	46.2	53.8	13
TOT	0	0	0	7	9	3	1	0	1	0	21	37	58
PCT	.0	.0	.0	12.1	15.5	5.2	1.7	.0	1.7	.0	36.2	63.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	1.9	9.6	19.2	69.2	52
06009	.0	.0	2.6	3.8	28.2	65.4	78
12015	.0	.0	1.2	1.2	19.3	78.3	83
18021	.9	.0	1.7	3.5	21.7	72.2	115
TOT	1	0	6	13	73	235	328
PCT	.3	.0	1.8	4.0	22.3	71.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	21.1	21.1	57.9	19
06009	.0	.0	.0	22.2	77.8	9
12015	.0	.0	7.1	28.6	64.3	14
18021	.0	7.7	23.1	23.1	53.8	13
TOT	0	1	8	13	76	55
PCT	.0	1.8	14.5	23.6	61.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	3.7	4.6	.0	.0	9	8.3
80/84	.0	.0	.0	.0	.9	16.5	46.8	11.0	82	75.2
75/79	.0	.0	.0	.0	.0	.0	10.1	6.4	18	16.5
TOTAL	0	0	0	0	5	23	62	19	109	100.0
PCT	.0	.0	.0	.0	4.6	21.1	56.9	17.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	1.8	.0	.0	.9	.9	.9	.0	2.8	.0	.9
80/84	10.1	5.0	2.8	4.4	4.8	6.4	11.0	26.1	.0	4.6
75/79	1.8	.0	.9	.0	.0	2.1	5.7	5.0	.0	.9
TOTAL	13.8	5.0	3.7	5.3	5.7	9.4	16.7	33.9	.0	6.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	89	88	84	81	76	75	75	80.6	76
06009	89	88	87	82	79	75	73	82.4	160
12015	87	84	84	82	79	77	77	81.5	119
18021	88	85	83	81	76	74	73	80.3	179
TOT	89	88	85	81	77	75	73	81.2	536

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	19.2	50.0	30.8	86	26
06009	.0	.0	13.3	30.0	43.3	13.3	80	30
12015	.0	.0	2.9	26.5	58.8	11.8	82	34
18021	.0	.0	.0	17.6	67.6	14.7	84	34
TOT	0	0	5	29	69	21	83	124

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1856-1971

DECEMBER

AREA 0004 NORTHWEST JAVA SEA  
3.6S 106.6E

TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	M FOG	MO FOG
7/8	.0	.0	.0	.0	.0	1	.0	.8
8	.0	.8	.0	.0	.8	2	.0	1.6
9	.0	.0	.8	2.5	.0	4	.0	3.3
10	.0	.0	.0	.8	.8	2	.0	1.6
11	.0	.0	3.3	.0	.8	5	.8	3.3
12	.0	.0	4.9	2.5	.0	9	.0	7.4
13	.0	.0	13.1	.0	.0	17	.0	13.9
14	.0	2.5	11.5	.0	.0	14	.0	13.9
15	.0	9.0	15.0	.0	.0	24	.8	23.8
16	.0	4.1	6.6	.0	.0	10	.0	10.7
17	.0	6.6	.8	.0	.0	7	.0	7.4
18	.8	.0	2.5	.0	.0	4	.0	3.3
19	.0	3.3	.8	.0	.0	5	.0	4.1
20	.8	1.6	.0	.0	.0	3	.0	2.5
21	.0	.8	.0	.0	.0	1	.0	.8
TOTAL	2	35	73	9	3	122	2	120
PCT	1.6	28.7	59.8	7.4	2.5	100.0	1.6	98.4

PERIOD: (OVER-ALL) 1962-1971

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	6.7	.0	.0	.0	.0	6.7	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	6.7	.0	.0	.0	.0	6.7	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	3.3	.0	.0	.0	.0	3.3
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	3.3	.0	.0	.0	.0	3.3



PERIOD: (OVER-ALL) 1963-1971

DECEMBER

TABLE 18 (CONT)

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.6E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	3.3	.8	.0	.0	.0	.0	4.2	
1-2	.0	.0	.0	.0	.0	.0	.0	.0	6.7	.0	.0	.0	.0	6.7	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.7	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.0	.0	.0	.0	.0	.0	3.3	14.2	.0	.0	.0	.0	17.5	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	6.7	2.5	.0	.0	.0	.0	9.2	.0	3.3	.0	.0	.0	.0	3.3	
1-2	.0	.0	.0	.0	.0	.0	.0	3.3	23.3	6.7	.0	.0	.0	33.3	
3-4	.0	.0	3.3	.0	.0	.0	3.3	.0	6.7	.0	.0	.0	.0	6.7	
5-6	.0	3.3	.0	.0	.0	.0	3.3	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.7	5.8	3.3	.0	.0	.0	15.8	3.3	33.3	6.7	.0	.0	.0	43.3	86.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	28.1	9.4	.0	.0	.0	.0	.0	37.5
1-2	3.1	34.4	6.3	.0	.0	.0	.0	43.8
3-4	.0	12.3	3.1	.0	.0	.0	.0	15.6
5-6	.0	3.1	.0	.0	.0	.0	.0	3.1
7	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	31.3	59.4	9.4	.0	.0	.0	100.0	32

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	10.6	31.9	17.0	4.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	30	2
6-7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
10-11	.0	2.1	.0	.0	2.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	10
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDEX	19.1	6.4	6.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	1
TOTAL	14	19	11	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	2
PCT	29.8	40.4	23.4	4.3	2.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1888-1973  
(OVER-ALL) 1854-1973

ANNUAL

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHMR	DRZL	FRZG	SNOW	OTHER	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LT-G	FOG WD	FOG WD PCPN	SMOKE	HAZE	BLWG DUST
N	9.2	6.7	3.3	.0	.0	.0	.0	19.2	.0	7.3	3.5	.0	1.8	.0	69.9
NE	3.6	3.8	.4	.0	.0	.0	.0	7.8	1.6	11.8	6.3	.0	1.2	.0	73.1
E	.7	1.5	.6	.0	.0	.0	.0	2.7	3.1	5.2	.9	.0	.5	.0	87.7
SE	2.6	5.8	.2	.0	.0	.0	.3	8.9	.9	5.4	5.3	.0	3.7	.0	77.0
S	6.0	1.9	1.8	.0	.0	.0	.0	9.2	1.2	7.8	3.0	.0	.0	.0	80.2
SW	7.6	3.6	.8	.0	.0	.0	.0	12.0	5.1	8.3	.3	.0	.0	.0	76.5
W	8.8	4.0	.5	.0	.0	.0	.0	13.0	1.9	5.7	.3	.0	.0	.0	80.9
NW	5.5	7.3	.4	.0	.0	.0	.0	13.2	1.9	4.2	.5	6.3	.8	.0	63.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.5	.0	.0	.0	.0	.0	.5	1.4	9.0	.0	.0	.6	.0	88.5
TOT PCT	4.2	4.3	.8	.0	.0	.0	.1	9.3	1.9	6.7	1.9	*	.9	.0	80.6
TOT OBS:	2130														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHMR	DRZL	FRZG	SNOW	OTHER	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LT-G	FOG WD	FOG WD PCPN	SMOKE	HAZE	BLWG DUST
00003	4.2	6.1	.9	.0	.0	.0	.0	11.3	3.9	1.4	1.7	.0	.6	.0	81.8
06009	4.0	5.0	.4	.0	.0	.0	.2	9.4	1.6	1.2	1.2	.0	1.4	.0	85.4
12015	4.1	1.6	1.4	.0	.0	.0	.0	6.8	1.3	9.8	1.7	.0	.6	.0	80.8
18021	5.8	5.9	.5	.0	.0	.0	.0	12.2	1.2	12.1	2.6	.1	.9	.0	73.4
TOT PCT	4.6	4.6	.8	.0	.0	.0	*	9.9	1.8	6.9	1.9	*	.9	.0	79.8
TOT OBS:	2281														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21	
N	1.2	5.0	1.3	*	.0	.0		7.5	6.5	6.9	6.1	5.8	6.8	8.2	10.5	8.9	7.8	
NE	1.5	4.5	.7	*	.0	.0		6.7	6.3	4.2	4.9	3.6	4.7	6.9	2.6	11.2	9.3	
E	2.3	12.1	3.5	*	.0	.0		17.9	6.4	17.7	22.5	16.1	17.6	18.0	22.9	18.5	18.8	
SE	1.8	14.4	4.6	.2	.0	.0		20.9	7.0	20.9	23.4	20.7	26.6	24.3	21.3	18.5	15.6	
S	1.7	4.0	1.1	*	.0	.0		6.7	6.4	7.7	9.5	8.8	11.4	10.2	10.1	7.3	7.0	
SW	1.5	5.2	1.5	.1	.0	.0		8.3	7.7	9.6	6.5	10.1	7.9	6.7	9.4	7.1	8.0	
W	1.2	5.9	1.7	.1	.0	.0		8.9	7.7	10.1	10.8	12.0	6.7	6.2	7.8	7.9	9.9	
NW	1.3	9.2	3.0	.1	.0	.0		13.6	7.0	17.3	12.8	16.5	11.3	10.1	9.8	12.3	15.4	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	7.5							7.5	.0	5.6	3.5	6.4	7.0	9.5	5.6	8.3	8.1	
TOT OBS							6718		7.1	980	95	1414	735	1175	91	1276	972	
TOT PCT	20.0	62.2	17.2	.6	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40					00	03	09	15
N	3.8	3.5	.2	*	.0		7.5	6.5	6.8	6.2	8.3	8.4
NE	4.1	2.4	.1	*	.0		6.7	6.3	4.3	4.0	6.7	10.4
E	7.6	9.7	.5	*	.0		17.9	6.4	18.1	16.7	18.4	18.6
SE	8.2	11.6	1.0	*	.0		20.9	7.0	21.2	22.6	24.0	17.3
S	5.2	3.4	.2	*	.0		8.7	6.4	7.8	9.8	10.3	7.2
SW	4.3	3.6	.3	.0	.0		8.3	7.7	9.2	9.3	6.8	7.5
W	4.4	4.1	.4	*	.0		8.9	7.7	10.0	10.1	6.3	4.8
NW	5.6	7.3	.7	*	.0		13.6	7.0	17.0	14.5	10.0	13.6
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	7.5						7.5	.0	5.4	6.6	9.2	8.2
TOT OBS						6718		7.1	1055	2149	1266	2248
TOT PCT	50.8	45.7	3.5	.1	.0		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	WIND SPEED (KNOTS)							MEAN	PCT FREQ	TOTAL OBS
	CALM	1-3	4-10	11-21	22-33	34-47	48+			
00003	5.4	13.3	62.5	17.8	1.0	.0	.0	7.4	100.0	1055
06009	6.6	13.2	61.1	18.8	.3	.0	.0	7.2	100.0	2149
12015	9.2	13.1	62.0	15.3	.3	.0	.0	6.6	100.0	1266
18021	8.2	11.1	63.4	16.5	.8	.0	.0	7.1	100.0	2249
TOT								7.1		6718
PCT	7.5	12.5	62.2	17.2	.6	.0	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.9	1.4	2.7	2.6		4.8
NE	1.0	1.9	2.0	.4		4.4
E	5.8	4.3	6.3	1.5		4.1
SE	5.4	6.5	8.6	1.8		4.9
S	.6	2.0	3.6	2.2		5.6
SW	.0	1.3	3.9	3.7		6.4
W	.0	1.6	3.5	2.5		5.8
NW	.0	2.2	6.2	4.6		5.3
VAR	.0	.0	.0	.0		.0
CALM	1.6	.7	3.6	.5		3.9
TOT OBS					965	5.0
TOT PCT	17.5	22.0	40.5	20.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/MH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3999	4999	6499	7999			
.0	.0	.3	.6	1.0	.3	.0	.1	.0	.0	5.4	
.0	.0	.0	.2	.8	.3	.1	.1	.2	.0	3.9	
.0	.0	.0	1.0	1.4	.5	.3	.1	.0	.0	14.8	
.1	.0	.2	1.2	1.2	.9	.6	.1	.0	.3	17.8	
.0	.0	.2	.6	1.3	.5	.2	.1	.0	.1	5.1	
.0	.0	.2	1.2	2.1	.0	.2	.0	.0	.0	5.2	
.1	.0	.2	.6	1.7	.4	.1	.1	.0	.0	5.4	
.0	.1	.1	1.4	2.3	.9	.4	.1	.0	.0	8.3	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.3	.9	.2	.3	.0	.0	.0	4.7	
.2	.1	1.2	7.1	12.7	4.5	2.6	.7	.2	.4	70.4	965
											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	= OR >10		= OR >5		= OR >2		VSBY (NM) = OR >1		= OR >1/4		= OR >50YD		= OR >0
	= OR >10	= OR >5	= OR >5	= OR >2	= OR >2	= OR >1	= OR >1	= OR >1/4	= OR >1/4	= OR >50YD	= OR >50YD	= OR >0	
= OR >6500	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6
= OR >5000	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
= OR >3500	3.1	3.8	3.8	3.8	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
= OR >2000	6.6	8.4	8.4	8.4	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
= OR >1000	16.8	20.1	20.6	20.6	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7
= OR >600	21.7	26.8	27.6	27.6	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9
= OR >300	21.9	27.6	28.7	28.7	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0
= OR >150	21.9	27.6	28.8	28.8	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1
= OR >0	21.9	27.7	29.0	29.0	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2

TOTAL NUMBER OF OBS: 994

PCT FREQ NH <5/8: 70.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
9.9	13.1	23.2	17.4	11.5	8.0	6.7	5.8	9.0	.2	1065

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	*	*	*	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.1	*	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.1	.1	*	*	.0	.0	.0	.0	.2	
1<2	PCP	.0	*	.0	.1	.0	.7	.0	.0	.0	.0	.1	
	NO PCP	.2	.1	.1	.4	.0	.0	.0	*	.0	.1	.9	
	TOT %	.2	.2	.1	.5	.0	.7	.0	*	.0	.1	1.0	
2<5	PCP	.2	.0	*	.1	*	.2	.3	.3	.0	.0	1.2	
	NO PCP	*	.2	.1	.1	.2	*	*	.1	.0	.0	.7	
	TOT %	.3	.2	.1	.2	.2	.7	.4	.4	.0	.0	1.9	
5<10	PCP	.9	.4	.5	.7	.7	.6	.5	1.3	.0	*	5.6	
	NO PCP	3.4	3.0	4.6	5.8	3.0	1.7	1.3	3.4	.0	1.4	28.4	
	TOT %	4.3	3.4	5.1	6.5	3.7	2.3	2.3	4.8	.0	1.5	34.1	
10+	PCP	.3	.2	.1	.1	.2	.7	.5	.6	.0	.0	2.1	
	NO PCP	4.6	4.1	13.5	13.6	4.8	4.6	4.6	7.3	.0	3.6	60.6	
	TOT %	4.9	4.3	13.6	13.7	5.0	4.8	5.1	7.6	.0	3.6	62.7	
TOT OBS													2128
TOT PCT		9.7	8.0	19.0	20.9	8.9	7.4	7.8	13.0	.0	5.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.1	.2	.0	.0	.0	.0	.0	.0	.3	
	11-21	.0	.0	.0	.0	*	*	*	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	.2	.0	*	*	.0	.0	.0	.3	
1/2<1	0-3	.0	.0	*	*	*	*	.0	.0	.0	.0	.1	
	4-10	.0	.0	*	*	*	.1	.0	*	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	*	*	.1	.0	*	.0	.0	.3	
1<2	0-3	*	*	*	*	.0	.0	.0	.0	.0	.1	.2	
	4-10	*	.1	*	.2	.0	.0	.0	*	.0	.0	.3	
	11-21	.1	.0	*	*	.0	.0	*	*	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.1	.1	.3	.0	.0	*	.1	.0	.1	.7	
2<5	0-3	*	*	*	.1	*	.0	.0	*	.0	.1	.3	
	4-10	.1	.1	*	.1	.1	.2	.3	.0	.0	.0	1.0	
	11-21	.1	.0	*	.1	*	.1	.1	.0	.0	.0	.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.1	.1	.2	.1	.1	.3	.5	.0	.1	1.8	
5<10	0-3	.4	.4	.3	.3	.4	.2	.1	.2	.0	1.0	3.1	
	4-10	1.7	1.6	2.5	2.9	1.7	1.2	1.2	2.2	.0	.0	14.9	
	11-21	.4	.2	.6	1.2	.3	.3	.3	.5	.0	.0	3.8	
	22+	*	.0	.0	.0	.0	.0	*	*	.0	.0	.1	
	TOT %	2.5	2.1	3.4	4.4	2.4	1.6	1.6	2.9	.0	1.0	21.9	
10+	0-3	.8	1.1	1.7	1.2	1.0	1.1	.9	1.0	.0	6.3	15.2	
	4-10	3.9	3.6	10.9	11.7	4.1	3.4	3.8	6.9	.0	.0	48.4	
	11-21	.9	.4	2.6	3.5	.5	1.0	.7	1.8	.0	.0	11.4	
	22+	*	.0	.0	.1	.0	.0	*	*	.0	.0	.1	
	TOT %	5.6	5.1	15.2	16.4	5.7	5.5	5.5	9.7	.0	6.3	75.1	
TOT OBS													3668
TOT PCT		8.4	7.5	18.9	21.6	8.2	7.4	7.5	13.2	.0	7.4	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.3	.7	8.3	14.0	5.1	1.4	.6	.0	.3	30.8	69.2	264
06009	.0	.0	.7	7.2	11.5	5.4	2.9	.7	.0	.7	29.1	70.9	235
12015	.0	.0	1.4	5.3	10.5	3.5	3.1	.8	.0	.0	24.7	75.3	273
18021	.5	.0	1.7	6.5	11.1	3.8	2.8	.3	.6	.9	28.3	71.7	271
TOT PCT	.2	.1	1.1	6.8	11.8	4.4	2.6	.6	.1	.4	28.0	72.0	1043 100.0

TABLE 11

PERCENT FREQUENCY VS BY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.4	.3	.9	3.5	20.2	74.7	654
06009	.3	.2	.7	1.0	23.9	73.9	920
12015	.3	.1	.4	1.3	19.6	78.3	898
18021	.4	.3	.7	1.6	26.4	70.6	1338
TOT PCT	.3	.2	.7	1.7	23.1	73.9	3819 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NH) AND/OR  
CEILING HGT (FEET) NH >4/8) BY HOUR

HOUR (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	1.1	11.5	20.5	68.0	256
06009	.0	.8	9.0	21.3	69.7	225
12015	.0	1.5	7.5	19.1	73.4	260
18021	.4	3.1	10.4	20.3	69.3	253
TOT PCT	.2	1.5	9.6	20.1	70.3	994 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.1	.3	.2	.0	.0	.5	
85/89	.0	.0	.0	.0	2.3	5.3	2.0	.3	9.9	
80/84	.0	.0	.0	.0	1.8	29.1	41.7	7.6	80.2	
75/79	.0	.0	.0	.0	.0	.8	4.1	4.3	9.2	
70/74	.0	.0	.0	.0	.0	.0	.1	.1	.2	
TOTAL PCT	.0	.0	.0	.1	4.4	39.3	47.8	12.4	1631 100.0	

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	1/4	VAR	CALM
90/94	.1	.1	.0	.1	.1	.4	.1	.5	.0	.0
85/89	.7	.5	2.1	2.9	1.0	.5	.3	.9	.0	1.0
80/84	8.1	7.2	14.9	17.8	6.8	5.6	5.5	10.0	.0	4.5
75/79	1.3	.4	.5	1.1	.9	1.2	1.7	2.0	.0	.1
70/74	.0	.1	.0	.0	.0	.1	.1	.0	.0	.0
TOTAL	10.2	8.3	17.5	21.7	8.8	7.4	7.6	12.9	.0	5.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	92	87	85	82	78	75	73	81.7	1058
06009	95	90	89	83	79	77	73	83.3	2146
12015	90	85	84	82	79	77	75	81.9	1281
18021	90	84	83	82	78	76	72	81.2	2259
TOT	95	89	86	82	79	76	72	82.1	6744

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	1.0	36.6	47.8	14.5	82	348		
06009	.0	.2	12.6	44.3	35.5	7.3	78	404		
12015	.0	.0	2.7	36.8	49.4	11.1	82	419		
18021	.0	.0	1.9	26.3	55.9	13.9	83	599		
TOT	0	1	78	821	851	219	81	1770		

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(OVER-ALL) 1854-1973

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AREA 0004 NORTHWEST JAVA SEA  
3.6S 106.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THR OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	>92	TOT	N FOG	NO FOG
9/10	.0	.0	.0	.0	.1	.0	2	.0	.1
7/8	.0	.0	.0	.1	.2	.0	5	.0	.3
6	.0	.1	.1	.1	.2	.0	9	.0	.5
5	.0	.0	.1	.4	.2	.0	14	.0	.7
4	.0	.0	.5	1.4	.2	.0	37	.0	2.0
3	.0	.0	.4	.8	.1	.0	23	.1	1.2
2	.1	.0	3.8	1.7	.1	.1	105	.1	5.7
1	.0	.1	6.6	1.0	.1	.0	160	.1	8.5
0	.0	1.2	16.8	1.0	.0	.0	300	.9	18.9
-1	.0	1.8	15.2	1.0	.0	.0	329	.2	17.8
-2	.0	3.9	15.2	.2	.0	.0	345	.2	19.1
-3	.0	2.8	5.8	.7	.0	.0	161	.1	8.7
-4	.1	3.9	3.6	.7	.0	.0	142	.1	7.6
-5	.3	1.3	2.1	.0	.0	.0	69	.0	3.7
-6	.1	.6	.7	.0	.0	.0	26	.0	1.4
-7/-8	.2	.9	.4	.0	.0	.0	28	.0	1.5
-9/-10	.2	.1	.0	.0	.0	.0	5	.0	.3
-11/-13	.1	.1	.0	.0	.0	.0	4	.0	.2
TOTAL							1827		
PCT	1.1	16.8	71.2	9.7	1.1	.1	100.0	1.7	98.3

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.5	1.6	.0	.0	.0	.0	2.1	.5	1.0	.0	.0	.0	.0	1.5
1-2	.0	4.0	.5	.0	.0	.0	4.5	.7	1.6	.3	.0	.0	.0	2.1
3-4	.1	.2	1.1	.0	.0	.0	1.5	.0	.2	.0	.0	.0	.0	.2
5-6	.0	.0	.4	.2	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0
TOT PCT	.6	5.8	2.1	.2	.0	.0	8.6	.7	4.6	.4	.0	.0	.0	3.9

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.7	2.6	.0	.0	.0	.0	3.2	.6	2.4	.2	.0	.0	.0	3.2
1-2	.0	6.6	1.4	.0	.0	.0	8.0	.7	8.8	2.5	.0	.0	.0	12.0
3-4	.2	3.4	2.5	.0	.0	.0	6.0	.0	2.1	1.8	.3	.0	.0	5.2
5-6	.0	.5	.7	.0	.0	.0	1.1	.0	.4	1.6	.0	.0	.0	2.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	12.9	4.5	.0	.0	.0	18.3	1.4	13.7	7.7	.3	.0	.0	23.1

PERIOD: (OVER-ALL) 1963-1973

ANNUAL

AREA 0004 NORTHWEST JAVA SEA  
3.63 165.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.5	.5	.0	.0	.0	.0	.8	.5	1.5	.0	.0	.0	.0	2.3	
1-2	.5	3.6	.0	.0	.0	.0	4.1	.4	4.3	.4	.0	.0	.0	5.1	
3-4	.1	.9	.0	.0	.0	.0	1.0	.1	1.8	.9	.0	.0	.0	2.7	
5-6	.0	.0	.3	.0	.0	.0	.3	.0	.0	.2	.0	.0	.0	.2	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.9	5.1	.9	.0	.0	.0	6.9	1.2	7.6	1.6	.0	.0	.0	10.5	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.6	.8	.0	.0	.0	.0	1.4	.2	.6	.0	.0	.0	.0	1.1	
1-2	.3	2.1	.8	.0	.0	.0	3.1	.4	6.9	2.0	.0	.0	.0	9.3	
3-4	.0	1.2	.6	.0	.0	.0	1.9	.0	1.0	1.9	.0	.0	.0	2.9	
5-6	.0	.4	.0	.0	.0	.0	.4	.0	.0	1.0	.1	.0	.0	1.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.7	4.5	1.4	.0	.0	.0	6.8	.7	9.8	3.1	.1	.0	.0	14.5	92.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	13.1	11.1	.2	.0	.0	.0	24.3	
1-2	3.0	37.1	7.6	.0	.0	.0	47.7	
3-4	.5	10.5	10.1	.3	.0	.0	21.4	
5-6	.0	1.3	4.1	.2	.0	.0	5.5	
7	.0	.0	.8	.0	.0	.0	.8	
8-9	.0	.0	.1	.0	.0	.0	.1	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	16.6	59.9	22.9	.5	.0	.0	100.0	573

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	13.8	34.0	19.0	4.5	.9	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	609	2
6-7	.0	1.3	4.7	1.4	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	74	4
8-9	.0	.4	.4	.1	.4	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12	4
10-11	.0	.3	.1	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	6
12-13	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	3
>13	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	1
INDET	11.2	3.0	2.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	139	1
TOTAL																				844	2
PCT	24.9	39.1	27.0	6.6	2.2	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1888-1973  
(OVER-ALL) 1854-1973

AREA 0004 NORTHWEST JAVA SEA  
3.65 106.06

TABLE 20

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
87/88	.4	.2	2.1	6.7	6.4	5.0	.8	.2	.9	1.3	1.5	2.1	140	2.3
85/86	3.0	5.5	16.1	25.6	34.5	16.8	8.2	4.3	4.3	16.5	18.4	7.6	829	13.4
83/84	23.1	23.6	36.5	48.3	42.7	48.1	36.7	31.5	36.9	42.9	53.5	33.9	2383	38.5
81/82	54.0	50.5	35.8	18.2	13.4	25.0	47.4	51.3	47.7	33.6	21.5	47.8	2293	37.1
79/80	15.1	18.8	8.9	.2	1.2	3.2	5.4	10.9	8.9	4.6	2.6	7.2	440	7.1
77/78	3.8	.7	.7	.0	.8	.8	1.2	1.4	1.4	.4	.2	.6	62	1.0
75/76	.4	.5	.0	.0	.0	.2	.2	.2	.3	.3	.2	.2	8	.1
73/74	.2	.2	.3	.3	.3	.2	.2	.0	.0	.0	.0	.2	5	.1
71/72	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	1	*
69/70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
67/68	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
65/66	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
63/64	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
61/62	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
59/60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
57/58	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
55/56	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
53/54	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
51/52	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
49/50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	498	420	576	489	499	505	502	558	575	541	544	475	6182	100.0
MEAN	81.4	81.8	82.8	84.0	84.1	83.4	82.4	82.1	82.2	83.0	83.4	82.4	82.7	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

HR	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1011	1009	1010	1007	1010	1009	1010	1009	1010	183
FEB	1010	1011	1010	1008	1009	1009	1010	1010	1010	163
MAR	1011	1009	1010	1008	1009	1011	1011	1009	1010	255
APR	1009	1010	1009	1008	1009	1011	1010	1009	1009	202
MAY	1010	1007	1009	1007	1009	1010	1009	1009	1009	223
JUN	1010	1010	1010	1008	1010	1009	1010	1009	1010	237
JUL	1011	1012	1010	1009	1009	1010	1010	1010	1010	239
AUG	1011	1011	1010	1009	1010	1010	1010	1010	1010	249
SEP	1011	1011	1010	1009	1010	1011	1010	1010	1010	211
OCT	1011	1011	1010	1010	1010	1012	1010	1010	1010	198
NOV	1010	1010	1009	1009	1010	1009	1010	1008	1010	219
DEC	1011	1010	1009	1008	1010	1009	1010	1009	1010	185
ANN	1011	1010	1010	1008	1010	1010	1010	1009	1010	2563
OBS	392	67	590	217	462	78	507	232		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	1004	1005	1006	1008	1010	1011	1012	1012	1013
FEB	1005	1005	1006	1009	1010	1011	1012	1013	1014
MAR	1005	1005	1007	1009	1010	1011	1013	1013	1014
APR	1005	1005	1006	1008	1009	1010	1012	1014	1015
MAY	1005	1006	1006	1008	1009	1010	1012	1013	1015
JUN	1005	1006	1007	1009	1010	1011	1012	1014	1015
JUL	1005	1006	1008	1009	1010	1011	1013	1013	1014
AUG	1006	1006	1007	1009	1010	1011	1012	1013	1014
SEP	1006	1006	1008	1009	1010	1011	1013	1013	1014
OCT	1006	1006	1007	1009	1010	1011	1013	1013	1014
NOV	1005	1006	1007	1008	1010	1011	1012	1013	1014
DEC	1004	1005	1006	1008	1010	1011	1013	1013	1014



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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG	FOG WD PCPN	SMOKE HAZE	SPRAY BLWG DUST	NO SIG MEA
N	3.2	8.5	.0	.0	.0	.0	.0	11.7	2.7	1.2	3.5	.0	.0	.0	80.9
NE	5.8	2.2	.0	.0	.0	.0	.0	8.0	1.4	.4	3.6	.0	.0	.0	86.6
E	3.5	.0	.0	.0	.0	.0	.0	3.5	.0	.0	.0	.0	.0	.0	96.5
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
S	20.0	40.0	.0	.0	.0	.0	.0	50.0	.0	.0	.0	.0	.0	.0	40.0
SW	6.7	26.7	.0	.0	.0	.0	.0	33.3	.0	.0	.0	.0	.0	.0	66.7
W	17.0	12.8	2.1	.0	.0	.0	.0	31.9	8.5	4.3	.0	.0	.0	.0	59.6
NW	3.8	13.2	.6	.0	.0	.0	.0	17.6	2.8	.0	3.1	.0	.0	.0	76.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	12.5	.0	.0	.0	.0	.0	12.5	.0	.0	.0	.0	.0	.0	87.5
TOT PCT	4.8	8.8	.3	.0	.0	.0	.0	14.0	2.1	.9	2.8	.0	.0	.0	80.1
TOT OBS:	351														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GHT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG	FOG WD PCPN	SMOKE HAZE	SPRAY BLWG DUST	NO SIG MEA
00003	4.1	13.5	.0	.0	.0	.0	.0	17.6	4.1	1.4	1.4	.0	.0	.0	77.0
06009	4.3	12.0	.0	.0	.0	.0	.0	16.2	1.7	.0	3.4	.0	.0	.0	78.6
12015	3.8	5.1	.0	.0	.0	.0	.0	8.9	1.3	1.3	2.5	.0	.0	.0	86.1
18021	6.4	6.3	1.1	.0	.0	.0	.0	15.8	3.2	1.1	3.2	.0	.0	.0	76.8
TOT PCT	5.2	9.3	.3	.0	.0	.0	.0	14.8	2.5	.8	2.7	.0	.0	.0	79.5
TOT OBS:	365														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GHT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	2.0	24.3	15.0	.8	.0	.0		42.1	10.2		38.9	37.5	39.9	42.2	47.4	38.9	42.4	41.8
NE	1.3	11.5	4.4	.3	.0	.0		17.5	9.0		14.4	.0	13.0	14.7	20.4	27.8	22.7	20.6
E	.6	1.7	.2	.0	.0	.0		2.5	6.1		2.0	.0	1.8	1.6	3.1	.0	4.4	2.1
SE	.4	.5	.0	.0	.0	.0		.9	3.8		1.5	.0	.9	1.6	.5	.0	.6	.7
S	.3	.7	.1	.0	.0	.0		1.1	5.4		1.8	.0	.5	1.3	1.0	.0	.6	2.1
SW	.4	1.2	.1	.0	.0	.0		1.8	5.2		3.0	25.0	.9	1.3	.5	.0	2.0	3.2
W	.8	3.9	1.0	.1	.0	.0		5.8	8.1		6.8	.0	10.1	4.9	2.3	5.6	4.4	5.3
NW	1.7	16.5	6.2	.2	.1	.0		24.5	9.0		29.1	37.5	29.8	29.7	20.1	27.8	17.7	19.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.7							3.7	.0		2.4	.0	3.2	2.6	4.6	.0	5.2	4.3
TOT OBS	118	638	286	14	1	0	1059		8.9		165	4	221	193	194	9	172	141
TOT PCT	11.1	60.2	27.0	1.5	.1	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GHT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	9.9	26.9	5.2	.8	.0			42.1	10.2		38.9	40.8	47.0	42.2
NE	5.2	11.4	.8	.0	.0			17.5	9.0		14.1	13.7	20.7	21.7
E	1.5	1.0	.0	.0	.0			2.5	6.1		1.9	1.7	3.0	3.4
SE	.9	.0	.0	.0	.0			.9	3.8		1.5	1.2	.5	.6
S	.8	.3	.0	.0	.0			1.1	5.4		1.8	.8	1.0	1.3
SW	1.5	.3	.0	.0	.0			1.8	5.2		3.6	1.1	.5	2.6
W	2.5	2.8	.4	.0	.0			5.8	8.1		6.7	8.0	2.5	4.8
NW	7.5	15.9	1.2	.1	.0			24.6	9.0		29.3	29.7	20.6	18.7
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	3.7							3.7	.0		2.4	2.9	4.4	4.8
TOT OBS	355	621	81	2	0	1059			8.9		169	274	203	313
TOT PCT	33.5	58.6	7.6	.2	.0			100.0			100.0	100.0	100.0	100.0

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.75 105.0E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	2.4	8.9	59.8	28.4	.6	.0	.0	.0	8.5	100.0	169
06009	2.9	8.0	57.5	29.1	2.1	.3	.0	.0	9.2	100.0	374
12015	4.4	8.9	56.7	28.1	2.0	.0	.0	.0	8.9	100.0	203
18021	4.8	5.1	66.1	23.0	1.0	.0	.0	.0	8.6	100.0	313
TOT	.9	.9	43.8	2.86	.16	.1	.0	.0	8.9		1059
PCT	3.7	7.5	60.2	27.0	1.5	.1	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL PCT	MEAN CLOUD COVER
N	6.9	3.9	28.0	9.7		3.8
NE	2.1	5.3	6.0	4.6		3.6
E	.0	1.6	.9	.9		3.6
SE	.0	.0	.9	.0		3.0
S	.0	.0	.0	.0		.0
SW	.0	.0	.9	.0		3.0
W	.0	.0	1.9	4.4		7.4
NW	1.2	4.9	6.7	5.3		3.8
VAR	.0	.0	.0	.0		.0
CALM	.0	.9	1.9	.9		6.2
TOT OBS	11	18	51	28	108	3.8
TOT PCT	10.2	16.7	47.2	25.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) AND  
OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL PCT	MEAN CLOUD COVER	000 149	150 298	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	5500 7999	8000+ ANY HGT	NH <5/8 ANY HGT	TOTAL OBS
N	6.9	3.9	28.0	9.7		3.8	.0	.0	.0	1.6	4.4	2.5	3.7	.7	.7	.0	35.0	
NE	2.1	5.3	6.0	4.6		3.6	.0	.0	.9	1.2	3.0	.0	.0	.2	.0	.0	12.7	
E	.0	1.6	.9	.9		3.6	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	2.5	
SE	.0	.0	.9	.0		3.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	
S	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
SW	.0	.0	.9	.0		3.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0	
W	.0	.0	1.9	4.4		7.4	.0	.0	.0	2.8	.9	.9	.0	.0	.0	.0	1.6	
NW	1.2	4.9	6.7	5.3		3.8	.0	.0	.0	1.9	.9	1.2	.0	.0	.2	.0	13.9	
VAR	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.9	1.9	.9		6.2	.0	.0	.0	.0	1.9	.7	.0	.0	.0	.0	1.9	
TOT OBS	11	18	51	28	108	3.8	.0	.7	1	10	13	5	4	1	1	.0	73	108
TOT PCT	10.2	16.7	47.2	25.9	100.0		.0	.7	.9	9.3	12.0	4.6	3.7	.9	.9	.0	67.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>5000	>0
>6500	.9	.9	.9	.9	.9	.9	.9	.9
>5000	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
>3500	4.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
>2000	8.3	10.2	10.2	10.2	10.2	10.2	10.2	10.2
>1000	15.7	21.3	22.2	22.2	22.2	22.2	22.2	22.2
>600	22.2	27.8	29.6	30.6	31.5	31.5	31.5	31.5
>300	22.2	28.7	30.6	31.5	32.4	32.4	32.4	32.4
>150	22.2	28.7	30.6	31.5	32.4	32.4	32.4	32.4
>0	22.2	28.7	30.6	31.5	32.4	32.4	32.4	32.4
TOTAL	24	31	33	34	35	35	35	35

TOTAL NUMBER OF OBS: 108

PCT FREQ NH <5/8: 67.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	9	OBSCD	TOTAL OBS
1.7	10.4	21.7	15.7	19.1	9.6	8.7	6.1	7.0	.0	115	

1521 0005 34404 15.147 428°-0055°  
.75 :05.05

[illegible][illegible]

PERIOD: (PRIMARY) 1914-1973  
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH < 5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	9.4	6.3	9.4	6.3	.0	3.1	.0	34.4	65.6	32
06009	.0	.0	.0	9.1	15.2	.0	.0	3.0	.0	.0	27.3	72.7	33
12015	.0	.0	.0	6.7	16.7	3.3	6.7	.0	.0	.0	33.3	66.7	30
18021	.0	.0	5.3	10.5	5.3	5.3	.0	.0	.0	.0	26.3	73.7	19
TOT	0	0	1	10	13	5	4	1	1	0	35	79	114
PCT	.0	.0	.9	8.8	11.4	4.4	3.5	.9	.9	.0	30.7	69.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	2.6	1.8	23.7	71.9	114
06009	.0	.9	.9	.9	27.0	70.7	222
12015	.0	1.4	.7	1.4	25.7	70.7	140
18021	.0	.5	1.0	1.0	29.5	68.0	200
TOT	0	5	7	8	182	474	676
PCT	.0	.7	1.0	1.2	26.9	70.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH > 4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL OBS
00003	.0	.0	9.7	25.8	64.5	31
06009	.0	.0	13.3	16.7	70.0	30
12015	.0	3.4	6.9	27.6	65.5	29
18021	.0	5.6	10.7	11.1	72.2	18
TOT	0	2	12	23	73	108
PCT	.0	1.9	11.1	21.3	67.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.0	.4	.0	.0	1	.4
85/89	.0	.0	.0	.4	.8	4.2	.4	.0	15	5.7
80/84	.0	.0	.0	.0	.8	16.3	29.2	6.7	171	65.0
75/79	.0	.0	.0	.0	.4	1.9	14.1	11.8	74	28.1
70/74	.0	.0	.0	.0	.0	.0	.0	.8	2	.8
TOTAL	0	0	0	1	5	60	141	56	263	100.0
PCT	.0	.0	.0	.4	1.9	22.8	53.6	21.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
85/89	2.7	1.1	.0	.0	.0	.0	.3	1.6	.0	.0
80/84	26.1	12.5	4.1	1.5	.4	.0	2.8	15.0	.0	2.7
75/79	9.9	5.2	.0	.0	.4	1.0	4.4	7.3	.0	.0
70/74	.0	.0	.0	.0	.0	.2	.6	.0	.0	.0
TOTAL	38.7	18.8	4.5	1.5	.8	1.1	8.0	24.0	.0	2.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	87	85	83	80	76	75	74	79.9	171
06009	91	89	86	82	77	74	73	81.7	378
12015	86	85	83	81	78	75	75	80.6	204
18021	87	82	82	80	77	75	74	79.8	314
TOT	91	87	85	81	77	75	73	80.6	1067

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	10.3	58.6	31.0	87	58
06009	.0	1.1	4.4	38.9	38.9	16.7	81	90
12015	.0	.0	1.8	21.8	60.0	16.4	84	55
18021	.0	.0	.0	13.9	59.7	26.4	87	72
TOT	0	1	5	63	145	61	84	273

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TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	h FOG	hC FOG
7/8	.0	.0	.0	.0	.4	1	.0	.4
6	.0	.0	.0	.4	.4	2	.0	.7
5	.0	.0	.7	.7	.4	5	.0	1.8
4	.0	.0	.7	1.4	.0	6	.0	2.1
2	.0	.0	6.0	.4	.0	18	.4	6.0
1	.0	1.8	7.1	.7	.0	27	.4	9.2
0	.0	9.5	18.0	.7	.0	80	2.1	26.1
-1	.4	14.5	6.7	.4	.0	62	.7	21.2
-2	.4	8.1	5.7	.0	.0	40	.0	14.1
-3	.0	4.2	1.1	.0	.0	15	.0	5.3
-4	.4	3.9	.7	.0	.0	14	.0	4.9
-5	.4	2.5	.0	.0	.0	8	.0	2.8
-6	.4	1.4	.0	.0	.0	5	.0	1.8
TOTAL	5	130	132	13	5	283	10	275
PCT	1.8	45.9	46.6	4.6	1.1	100.0	3.5	96.5

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	4.2	.0	.0	.0	.0	4.2	1.7	1.7	.0	.0	.0	.0	3.9
1-2	.0	9.6	9.6	.0	.0	.0	19.2	.0	7.1	3.3	.0	.0	.0	10.4
3-4	.0	5.8	9.2	.0	.0	.0	15.0	.0	2.5	.0	.0	.0	.0	2.5
5-6	.0	.0	5.8	.0	.0	.0	5.8	.0	.0	2.5	.0	.0	.0	2.5
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	19.6	24.6	.0	.0	.0	44.2	1.7	11.3	5.8	.0	.0	.0	18.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.7	.0	.0	.0	.0	1.7	.0	1.7	.0	.0	.0	.0	1.7
1-2	.0	1.7	.0	.0	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.3	.0	.0	.0	.0	3.3	.0	1.7	.0	.0	.0	.0	1.7

PERIOD: (OVER-ALL) 1963-1973

JANUARY

AREA 0005 BANGKA ISLAND NORTHWEST  
.75 105.0E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	.0	.0	.0	.0	.0	1.7
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	.0	.0	.0	.0	.0	1.7

HGT	M							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	2.3	.0	.0	.0	.0	2.3	.0	.0	.8	.0	.0	.0	.0	.0	.8	
1-2	.0	1.3	1.7	.0	.0	.0	2.9	.0	1.7	3.8	2.1	.0	.0	.0	.0	7.5	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	9.2	.0	.0	.0	.0	10.8	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	4.6	1.7	.0	.0	.0	6.3	.0	1.7	6.3	11.3	.0	.0	.0	.0	19.2	95.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HRT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	6.7	15.0	.0	.0	.0	.0	21.7	
1-2	1.7	23.3	16.7	.0	.0	.0	41.7	
3-4	.0	10.0	18.3	.0	.0	.0	28.3	
5-6	.0	.0	8.3	.0	.0	.0	8.3	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.3	48.3	43.3	.0	.0	.0	100.0	60

PERIOD: (OVER-ALL) 1950-1973

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	15.1	31.2	22.6	3.2	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	68
6-7	.0	1.1	5.4	8.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14
8-9	.0	.0	2.7	1.1	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
13-14	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
INDET	5.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5
TOTAL	19	30	29	12	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	93	2
PCT	20.4	32.3	31.2	12.9	3.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1911-1973  
(OVER-ALL) 1866-1973

FEBRUARY

APEA 0005 DANGKA ISLAND NORTHWEST  
.75 105.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OBS TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WEA
N	3.0	4.6	.7	.0	.0	.0	.0	8.3	1.2	.0	1.1	.0	.0	.0	89.4
NE	.8	7.1	1.6	.0	.0	.0	.0	9.5	.0	3.2	6.3	.0	.0	.0	81.0
E	19.0	.0	.0	.0	.0	.0	.0	19.0	.0	.0	10.0	.0	.0	.0	75.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SW	.0	.0	.0	.0	.0	.0	.0	.0	16.7	33.3	.0	.0	.0	.0	50.0
W	6.9	6.9	.0	.0	.0	.0	.0	19.6	24.1	6.9	.0	.0	.0	.0	55.2
NW	10.7	7.1	.0	.0	.0	.0	.0	17.9	2.6	.0	1.0	.0	.0	.0	78.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	25.0	.0	.0	.0	.0	.0	25.0	.0	25.0	.0	.0	.0	.0	50.0
TOT PCT	4.2	5.7	.7	.0	.0	.0	.0	10.6	1.8	1.4	2.5	.0	.0	.0	83.7
TOT OBS:	283														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OBS TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WEA
0000Z	6.0	7.5	.0	.0	.0	.0	.0	13.4	3.0	.0	1.5	.0	.0	.0	82.1
0600Z	4.9	9.8	1.2	.0	.0	.0	.0	15.9	1.2	.0	1.2	.0	.0	.0	81.7
1200Z	2.8	4.2	1.4	.0	.0	.0	.0	8.5	.0	1.4	2.8	.0	.0	.0	87.3
1800Z	5.6	4.2	.0	.0	.0	.0	.0	9.9	2.8	4.2	5.6	.0	.0	.0	77.5
TOT PCT	4.8	6.5	.7	.0	.0	.0	.0	12.0	1.7	1.4	2.7	.0	.0	.0	82.1
TOT OBS:	291														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	3.5	27.2	11.8	.3	.0	.0		42.8	9.0		43.2	45.5	41.3	42.4	46.9	64.3	40.5	40.5
NE	2.3	14.7	9.4	.2	.0	.0		22.7	8.2		22.7	22.7	16.0	22.1	25.3	14.3	29.5	21.8
E	1.2	2.4	.3	.0	.0	.0		3.9	5.8		4.1	.0	3.9	4.7	5.3	.0	2.2	3.7
SE	.5	1.2	.0	.0	.0	.0		1.7	5.0		3.4	.0	.9	1.9	.3	.0	1.9	2.2
S	.1	.6	.1	.0	.0	.0		.7	7.0		.7	.0	2.0	.4	.3	.0	.4	.0
SW	.4	1.2	.1	.0	.0	.0		1.3	6.5		1.1	2.3	1.7	.8	.3	.0	.7	3.4
W	.4	3.4	.6	.1	.0	.0		4.4	7.7		6.4	6.8	8.1	3.1	1.9	.0	2.6	3.9
NW	2.4	11.0	4.4	.0	.0	.0		17.7	7.9		14.0	13.6	23.2	23.1	14.9	21.4	15.5	15.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.8							4.8	.0		4.3	9.1	9.0	1.6	4.3	.0	6.7	9.5
TOT OBS	131	531	198	5	0	0	863		7.9		139	11	166	129	161	7	134	116
TOT PCT	15.2	61.5	22.7	.6	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	14.0	25.8	3.0	.0	.0				43.2	41.8	47.6	40.5	
NE	9.8	11.6	1.3	.0	.0				22.7	18.6	25.3	29.5	
E	2.8	1.3	.1	.0	.0				3.9	4.2	5.1	2.9	
SE	1.3	.4	.0	.0	.0				1.7	5.0	.3	2.0	
S	.4	.2	.1	.0	.0				.7	7.0	.3	.2	
SW	.9	.3	.1	.0	.0				1.3	6.5	1.3	.3	2.0
W	2.3	1.7	.3	.0	.0				4.4	7.7	6.5	1.8	3.2
NW	7.9	9.4	.5	.0	.0				17.7	7.9	14.0	23.1	15.2
VAR	.0	.0	.0	.0	.0				.0	.0	.0	.0	.0
CALM	4.8								4.3	9.1	9.0	1.6	4.2
TOT OBS	379	438	46	0	0	863		7.9	140	295	168	250	
TOT PCT	43.9	50.8	5.3	.0	.0			100.0	100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1911-1973  
(OVER-ALL) 1866-1973

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AREA 0005 BANGKA ISLAND NORTHWEST  
.75 105.0E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOURL	CALM	1-3	4-10	WIND SPEED (KNOTS)			40+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	4.7	14.0	61.3	20.0	.0	.0	.0	7.5	100.0	150
06009	2.4	9.5	59.7	27.5	1.0	.0	.0	8.5	100.0	295
12015	4.2	10.7	60.1	24.4	.4	.0	.0	8.1	100.0	168
18021	8.0	9.2	64.8	17.6	.4	.0	.0	7.3	100.0	250
TOT	41	90	531	196	5	0	0	7.9		863
PCT	4.8	10.4	61.5	22.7	.6	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL OBS	MEAN CLOUD COVER
N	7.3	13.6	19.7	13.9		5.2
NE	3.8	3.3	9.8	2.8		4.9
E	1.0	.0	.0	1.5		5.6
SE	.0	.0	1.0	.0		6.0
S	.0	.8	.0	.0		4.0
SW	.0	.3	.3	.0		5.5
W	.0	.0	2.8	.0		6.6
NW	1.0	2.3	5.8	8.1		6.4
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	.0	1.0		8.0
TOT OBS	13	20	39	27	99	5.4
TOT PCT	13.1	20.2	39.4	27.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3999	4999	6499	7999			
N	.0	.0	.0	1.5	6.6	1.8	.8	.0	.0	.0	43.9	
NE	.0	.0	.0	1.5	1.0	2.0	.0	.0	.0	.0	15.2	
E	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	1.0	
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	
SW	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.8	
W	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	2.0	
NW	.0	.0	.0	2.5	2.5	2.3	1.3	.0	.0	.0	8.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	
TOT OBS	0	0	0	8	10	6	2	0	0	0	73	99
TOT PCT	.0	.0	.0	8.1	10.1	6.1	2.0	.0	.0	.0	73.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	OR >10	OR >5	OR >2	VSBY (NH)				OR >5000	OR >0
				OR >1	OR >1/2	OR >1/4			
OR >6500	.0	.0	.0	.0	.0	.0	.0	.0	.0
OR >5000	.0	.0	.0	.0	.0	.0	.0	.0	.0
OR >3500	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
OR >2000	6.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
OR >1000	15.0	17.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
OR >600	18.0	25.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
OR >300	18.0	25.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
OR >150	18.0	25.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
OR >0	18.0	25.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
TOTAL	18	25	26	26	26	26	26	26	26

TOTAL NUMBER OF OBS: 100

PCT FREQ NH <5/8: 74.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
2.8	14.7	22.9	21.1	14.7	8.3	5.5	2.8	7.3	.0	109



PERIOD: (PRIMARY) 1911-1973  
(OVER-ALL) 1866-1973

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AREA 0005 BANGA ISLAND NORTHWEST  
.75 105.0E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	
2<5	PCP	.0	.0	.0	.0	.0	.0	.2	.5	.0	.0	.7	
	NO PCP	.2	.0	.0	.0	.0	.0	.0	.5	.0	.0	.7	
	TOT %	.2	.0	.0	.0	.0	.0	.2	1.1	.0	.0	1.4	
5<10	PCP	7.6	2.0	.3	.0	.0	.0	.2	2.0	.0	.4	7.4	
	NO PCP	17.1	8.7	1.8	.4	.5	.4	1.3	3.7	.0	.0	33.9	
	TOT %	19.7	10.7	2.0	.4	.5	.4	1.5	5.7	.0	.4	41.3	
10+	PCP	.9	.1	.3	.0	.0	.0	.3	.0	.0	.0	1.8	
	NO PCP	28.4	11.5	1.2	1.1	.6	.1	.9	10.0	.0	1.1	54.8	
	TOT %	29.2	11.6	1.5	1.1	.6	.1	.9	10.5	.0	1.1	56.5	
TOT OBS													
TOT PCT													
		49.8	22.3	3.5	1.4	1.1	.5	2.6	17.3	.0	1.4	100.0	283

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.4	
	11-21	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.4	.0	.0	.0	.0	.2	.0	.0	.0	.2	.8	
2<5	0-3	.0	.0	.0	.0	.0	.0	.1	.3	.0	.0	.4	
	4-10	.3	.1	.0	.0	.0	.0	.1	.1	.0	.0	.6	
	11-21	.2	.0	.0	.0	.0	.0	.0	.4	.0	.0	.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.5	.1	.0	.0	.0	.0	.2	.8	.0	.0	1.6	
5<10	0-3	.7	.0	.1	.0	.0	.0	.1	.5	.0	.4	2.8	
	4-10	9.2	3.8	1.1	.2	.2	.1	.5	2.2	.0	.0	17.2	
	11-21	2.0	1.9	.1	.0	.1	.1	.2	.6	.0	.0	5.0	
	22+	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	TOT %	11.9	6.4	1.3	.2	.3	.2	.8	3.3	.0	.4	25.0	
10+	0-3	3.9	2.4	1.4	.6	.1	.0	.2	1.9	.0	2.8	13.3	
	4-10	20.8	12.3	2.1	.9	.5	.6	1.7	8.2	.0	.0	47.1	
	11-21	6.7	2.3	.0	.0	.0	.0	.3	2.6	.0	.0	11.9	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	31.4	17.0	3.5	1.5	.6	.6	2.2	12.6	.0	2.8	72.3	
TOT OBS													
TOT PCT													
		44.5	23.5	4.9	1.7	.9	1.1	3.2	16.7	.0	3.6	100.0	505

## FEBRUARY

PERIOD: (PRIMARY) 1911-1973  
(OVER-ALL) 1886-1973APEA 0005 BANGKA ISLAND NORTHWEST  
.75 105.0E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOJR (GMT)	000 149	130 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	12.5	6.3	6.3	.0	.0	.0	.0	25.0	75.0	32
06009	.0	.0	.0	11.5	3.8	.0	3.8	.0	.0	.0	19.2	80.8	26
12015	.0	.0	.0	.0	17.6	5.9	.0	.0	.0	.0	23.5	76.5	34
18021	.0	.0	.0	5.9	5.9	11.8	5.9	.0	.0	.0	29.4	70.6	17
TOT	0	0	0	8	10	6	2	0	0	0	26	83	109
PCT	.0	.0	.0	7.3	9.2	5.5	1.8	.0	.0	.0	23.9	76.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOJR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	1.7	.0	1.0	2.1	22.7	73.2	97
06009	.0	.0	.6	.0	26.5	72.9	155
12015	.0	.0	.0	3.5	23.7	72.8	114
18021	.0	.7	1.4	1.4	28.0	68.0	147
TOT	1	1	4	8	132	367	513
PCT	.2	.2	.8	1.6	25.7	71.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSRY (NM) AND/OR  
CEILING HGT (FEET) NH >4/8) BY HOUR

HOJR (GMT)	<150 <50YD	<600 <1	<1000 <3	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	13.3	13.3	73.3	30
06009	.0	.0	13.6	9.1	77.3	22
12015	.0	.0	3.2	27.4	74.2	31
18021	.0	.0	5.9	23.5	70.6	17
TOT	0	0	9	17	74	100
PCT	.0	.0	9.0	17.0	74.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.4	.0	.0	.0	.0	1	.4
85/89	.0	.0	.0	.0	.4	2.7	1.3	.0	10	4.5
80/84	.0	.0	.0	.0	.9	19.7	40.8	12.6	145	74.0
75/79	.0	.0	.0	.0	.0	1.8	40.3	9.0	47	21.1
TOTAL	0	0	0	1	1	54	117	48	223	100.0
PCT	.0	.0	.0	.4	1.3	24.2	52.5	21.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
85/89	1.6	1.3	.4	.0	.0	.0	.0	1.1	.0	.0
80/84	40.9	16.3	3.3	.9	.4	.1	1.2	9.3	.0	1.3
75/79	8.2	4.0	.6	.9	.0	.3	1.6	4.4	.0	.0
TOTAL	51.1	22.4	4.3	1.8	1.0	.4	2.8	14.8	.0	1.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOJR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	86	83	80	76	75	75	80.3	150
06009	92	89	87	82	78	76	75	82.3	287
12015	84	83	83	81	78	75	74	80.9	167
18021	84	83	82	80	77	75	74	80.1	247
TOT	92	89	85	81	77	75	74	81.0	651

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOJR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	.0	.0	12.7	65.5	21.8	85	55
06009	.0	1.7	1.7	43.3	31.7	21.7	82	60		
12015	.0	.0	3.5	22.8	49.1	24.6	84	57		
18021	.0	.0	.0	17.2	58.6	24.1	85	58		
TOT	0	1	3	36	117	53	84	230		

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 PERIOD: (PRIMARY) 1911-1973  
 (OVER-ALL) 1866-1973

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TABLE 17

 PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
 VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
9/10	.0	.0	.0	.0	.4	1	.0	.4
7/8	.0	.0	.4	.4	.0	2	.0	.9
6	.0	.0	.0	.4	.0	1	.0	.4
5	.0	.0	.0	.4	.0	1	.0	.4
4	.0	.0	.9	.0	.0	4	.0	1.8
3	.0	.0	1.8	.4	.0	5	.0	2.2
2	.0	.0	7.6	.4	.0	18	.0	8.1
1	.0	.9	9.9	1.3	.0	27	.4	11.7
0	.0	4.0	15.7	1.8	.0	48	1.3	20.2
-1	.0	6.7	12.6	.0	.0	43	.0	19.3
-2	.0	9.4	9.9	.0	.0	43	.0	19.3
-3	.4	3.6	.9	.0	.0	11	.0	4.9
-4	.4	2.2	1.8	.0	.0	9	.0	4.0
-5	.9	1.3	.9	.0	.0	7	.0	3.1
-6	.4	.9	.0	.0	.0	3	.0	1.3
TOTAL	5	65	138	14	1	223	4	219
PCT	2.2	29.1	61.9	6.3	.4	100.0	1.8	98.2

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	4.3	13.4	1.7	.0	.0	.0	19.4	2.2	1.7	.0	.0	.0	.0	3.9
1-2	.0	8.6	5.2	.0	.0	.0	13.8	1.7	5.2	1.7	.0	.0	.0	8.6
3-4	.0	7.3	8.2	.0	.0	.0	15.5	.0	.9	6.9	.0	.0	.0	7.8
5-6	.0	1.3	1.7	.0	.0	.0	3.0	.0	.4	1.7	.0	.0	.0	2.2
7	.0	.0	1.7	.0	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	1.7	.0	.0	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	4.3	32.3	18.4	.0	.0	.0	55.2	3.9	8.2	10.3	.0	.0	.0	22.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

PERIOD: (OVER-ALL) 1963-1973

FEBRUARY

AREA 0005 BANGKA ISLAND NORTHWEST  
.75 105.0E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	2.2	.4	.0	.0	.0	.0	2.6	.0
1-2	.0	1.7	.0	.0	.0	.0	1.7	.0	1.7	3.4	.0	.0	.0	5.2	.0
3-4	.0	1.7	.0	.0	.0	.0	1.7	.0	2.2	3.9	.0	.0	.0	6.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	.0	.0	.0	1.7	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.4	.0	.0	.0	.0	3.4	2.2	4.3	9.1	.0	.0	.0	15.5	96.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	13.6	15.3	1.7	.0	.0	.0	30.5	
1-2	1.7	16.9	10.2	.0	.0	.0	28.8	
3-4	.0	11.9	18.6	.0	.0	.0	30.5	
5-6	.0	1.7	5.1	.0	.0	.0	6.8	
7	.0	.0	1.7	.0	.0	.0	1.7	
8-9	.0	1.7	.0	.0	.0	.0	1.7	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	15.3	47.5	37.3	.0	.0	.0	100.0	59

PERIOD: (OVER-ALL) 1949-1973

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	15.4	29.5	7.7	3.8	1.3	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	46	2
6-7	.0	2.6	7.7	7.7	3.8	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18	5
8-9	.0	1.3	1.3	1.3	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	5
10-11	.0	1.3	.0	1.3	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	5.1	.0	3.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	1
TOTAL	16	27	16	11	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	78	3
PCT	20.5	34.6	20.5	14.1	5.1	3.8	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1914-1973  
(OVER-ALL) 1850-1973

MARCH

AREA 0005 BANGKA ISLAND NORTHWEST  
.75 105.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHHR	DRZL	FRZG	SNOW	OTHER FRZN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG	FOG WD PCPN	SMOKE	SPRAY	NO SIG
				PCPN		PCPN					PCPN	PAST HR	HAZE	BLWG	NEA
N	2.2	3.1	.0	.0	.0	.0	.0	5.3	.0	3.5	4.0	.0	.0	.0	87.2
NE	1.3	.0	.0	.0	.0	.0	.0	1.3	1.3	2.7	2.0	.0	.0	.0	92.0
E	3.3	.0	.0	.0	.0	.0	.0	3.3	.0	1.6	.0	.0	.0	.0	95.1
SE	9.5	.0	4.8	.0	.0	.0	.0	16.3	.0	4.8	.0	.0	.0	.0	81.0
S	2.8	16.7	.0	.0	.0	.0	.0	19.4	.0	.0	.0	.0	.0	.0	80.6
SW	18.5	12.3	.0	.0	.0	.0	.0	30.8	.0	.0	.0	.0	.0	.0	69.2
W	11.5	2.3	.0	.0	.0	.0	.0	13.8	4.6	4.6	.0	.0	.0	.0	77.0
NW	3.8	9.1	.0	.0	.0	.0	.0	12.9	3.0	.8	.0	.0	.0	.0	83.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.0	5.0	.0	.0	.0	.0	.0	10.0	.0	.0	.0	.0	.0	.0	90.0
TOT PCT	4.2	4.2	.3	.0	.0	.0	.0	8.7	1.0	2.4	1.6	.0	.0	.0	86.4
TOT OBS	381														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHHR	DRZL	FRZG	SNOW	OTHER FRZN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG	FOG WD PCPN	SMOKE	SPRAY	NO SIG
				PCPN		PCPN					PCPN	PAST HR	HAZE	BLWG	NEA
0000	8.4	3.6	.0	.0	.0	.0	.0	12.0	1.2	.0	1.2	.0	.0	.0	85.3
0600	3.4	8.4	.0	.0	.0	.0	.0	11.8	1.7	.0	1.7	.0	.0	.0	84.9
1200	.0	1.1	1.1	.0	.0	.0	.0	2.1	1.1	2.1	1.1	.0	.0	.0	93.6
1800	5.8	5.0	.0	.0	.0	.0	.0	10.8	.0	3.8	3.3	.0	.0	.0	80.0
TOT PCT	4.3	4.8	.2	.0	.0	.0	.0	9.4	1.0	2.2	1.9	.0	.0	.0	85.6
TOT OBS	416														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	3.6	21.9	5.7	.0	.0	.0		31.3	7.7	22.9	50.0	30.2	35.2	35.2	36.4	35.2	28.6	
NE	2.5	14.0	2.0	.0	.0	.0		18.6	7.1	16.3	.0	13.4	17.3	25.1	22.7	20.7	20.1	
E	2.2	3.6	.3	.0	.0	.0		6.1	5.1	6.3	.0	4.1	7.7	5.4	9.1	7.5	6.6	
SE	2.0	2.7	.0	.0	.0	.0		4.8	4.5	4.9	.0	5.6	3.1	3.8	9.1	5.4	5.6	
S	.9	2.0	.1	.0	.0	.0		2.9	5.3	5.7	.0	2.3	1.9	1.5	4.5	2.6	4.3	
SW	1.1	2.6	.3	.1	.0	.0		4.1	6.2	10.1	12.5	4.3	1.2	.3	4.5	3.4	5.6	
W	1.3	3.2	.3	.0	.0	.0		4.8	5.4	7.3	12.5	5.9	4.3	3.3	.0	3.7	4.3	
NW	1.8	12.3	2.7	.0	.0	.0		16.8	7.6	17.4	.0	19.7	23.1	17.3	4.5	16.2	13.8	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	10.5							10.5	.0	9.7	25.0	14.4	6.2	8.1	9.1	11.3	11.2	
TOT OBS	299	719	132	2	1	0	1153		6.2	175	4	257	162	198	11	194	132	
TOT PCT	25.9	62.4	11.4	.2	.1	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	03	09	18
N	14.7	15.3	1.3	.0	.0			31.3	7.7	22.9	32.1	35.3	32.3	
NE	9.3	8.9	.5	.0	.0			18.6	7.1	15.9	14.9	25.0	20.4	
E	4.6	1.4	.1	.0	.0			6.1	5.1	6.1	5.5	5.6	7.1	
SE	3.9	.9	.0	.0	.0			4.8	4.5	4.7	4.7	4.1	5.5	
S	2.1	.8	.0	.0	.0			2.9	5.3	5.6	2.1	1.7	3.3	
SW	2.7	1.2	.2	.0	.0			4.1	6.2	10.2	3.1	.5	4.3	
W	3.2	1.6	.0	.0	.0			4.8	5.8	7.4	5.3	3.1	4.0	
NW	7.8	8.7	.3	.0	.0			16.8	7.6	17.0	21.1	16.6	11.8	
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	
CALM	10.5							10.5	.0	10.1	11.2	8.1	11.3	
TOT OBS	679	448	25	1	0	1153			6.2	179	419	209	346	
TOT PCT	58.9	38.9	2.2	.1	.0			100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1914-1973  
(COVER-ALL) 1858-1973

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+			
0000	10.1	16.8	60.3	12.8	.0	.0	.0	6.0	100.0	179
0600	11.2	16.2	60.4	12.2	.0	.0	.0	6.2	100.0	419
1200	8.1	12.9	67.5	11.5	.0	.0	.0	6.5	100.0	209
1800	11.3	15.3	62.7	9.8	.6	.3	.0	6.2	100.0	346
TOT	171	178	719	132	2	1	0	6.2		1153
PCT	10.5	15.4	62.4	11.4	.2	.1	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-10	TOTAL OBS	MEAN CLOUD COVER
N	3.7	11.5	13.5	4.8		4.9
NE	7.2	6.8	7.7	2.2		4.0
E	1.8	2.8	3.3	.8		4.2
SE	.0	.0	1.0	1.0		7.1
S	.3	.7	.0	.3		4.0
SW	.7	.8	2.7	1.0		5.3
W	.3	1.0	2.0	1.3		5.8
NW	.7	3.7	7.8	4.5		6.0
VAR	.0	.0	.0	.0		.0
CALM	.0	.7	3.3	.0		5.8
TOT OBS	22	42	62	24	150	4.9
TOT PCT	14.7	28.0	41.3	16.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	1199	2399	4799	9599	19199	38399	76799	ANY HGT	OBS
.0	.0	.7	.5	3.0	3.0	1.8	.0	.0	1.3	22.8	
.0	.0	.0	.0	.8	2.0	.3	.7	.7	.7	18.7	
.0	.0	.0	.0	1.5	.7	.5	.0	.0	.0	6.2	
.0	.0	.0	.0	.3	.7	.0	.0	.0	.0	1.0	
.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	1.0	
.0	.0	.0	.7	1.0	.7	.0	.0	.0	.0	2.8	
.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	2.7	
.0	.0	.7	1.2	3.0	1.7	.7	.0	.0	.0	9.5	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.7	.0	.7	.7	.7	.0	.0	.0	.0	1.3	
.0	.0	.3	.4	.9	.4	.6	.1	.1	.3	.99	150
.0	.0	2.0	2.7	12.7	9.3	4.0	.7	.7	2.7	66.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
>5000	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
>3500	6.6	7.3	7.9	7.9	7.9	7.9	7.9	7.9
>2000	14.6	16.6	17.2	17.2	17.2	17.2	17.2	17.2
>1000	27.2	29.1	29.8	29.8	29.8	29.8	29.8	29.8
>600	29.1	31.8	32.5	32.5	32.5	32.5	32.5	32.5
>300	30.5	33.8	34.4	34.4	34.4	34.4	34.4	34.4
>150	30.5	33.8	34.4	34.4	34.4	34.4	34.4	34.4
>0	30.5	33.8	34.4	34.4	34.4	34.4	34.4	34.4
TOTAL	46	51	52	42	52	42	52	52

TOTAL NUMBER OF OBS: 151

PCT FREQ NH <5/8: 65.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	TOTAL
									OBS
4.9	12.9	20.2	16.6	9.8	11.4	11.0	9.2	4.3	.0
									163

PERIOD: (PRIMARY) 1914-1973  
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.75 105.0E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.3
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.3
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.3
NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.3
PCP	1.2	.1	.3	.8	.5	.9	.8	2.2	.0	.0	6.8	6.8
NO PCP	7.9	6.0	1.9	2.8	2.4	.9	2.2	6.4	.0	2.4	32.8	32.8
TOT %	9.1	6.1	2.2	3.5	2.9	1.8	3.0	8.7	.0	2.4	39.6	39.6
PCP	.4	.1	.0	.0	.4	.4	.0	.0	.0	.0	1.3	1.3
NO PCP	20.3	13.3	5.9	2.0	1.4	2.0	2.7	8.6	.0	2.4	58.5	58.5
TOT %	20.7	13.4	5.9	2.0	1.8	2.4	2.7	8.6	.0	2.4	59.8	59.8
TOT OBS												381
TOT PCT	24.7	19.5	8.1	5.5	4.7	4.3	5.7	17.3	.0	5.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
4-10	.1	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	.1
11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT %	.1	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1	.3	.3
0-3	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.4	.4
4-10	.0	.1	.0	.0	.2	.2	.0	.0	.0	.0	.0	.6	.6
11-21	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	.1
22+	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	.1
TOT %	.1	.1	.0	.0	.2	.2	.1	.3	.0	.3	.3	1.3	1.3
0-3	.1	.3	.4	.7	.4	.2	.4	.3	.0	1.8	5.0	5.0	5.0
4-10	4.2	3.1	.7	1.2	1.1	.7	1.2	2.7	.0	.0	14.8	14.8	14.8
11-21	.9	.1	.1	.1	.1	.3	.1	1.7	.0	.0	3.4	3.4	3.4
22+	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1	.1
TOT %	5.2	3.5	1.2	2.0	1.6	1.3	1.8	5.0	.0	1.8	23.4	23.4	23.4
0-3	2.6	1.3	1.7	1.1	.4	1.0	1.0	1.1	.0	7.3	17.5	17.5	17.5
4-10	16.7	11.8	3.3	.8	1.2	2.4	2.6	10.7	.0	.0	49.6	49.6	49.6
11-21	3.7	2.4	.3	.0	.0	.0	.2	1.3	.0	.0	7.9	7.9	7.9
22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT %	23.0	15.6	5.3	1.9	1.6	3.4	3.7	13.1	.0	7.3	74.9	74.9	74.9
TOT OBS													674
TOT PCT	28.3	19.3	6.6	3.9	3.4	5.0	5.6	18.4	.0	9.5	100.0		

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PERIOD: (PRIMARY) 1914-1973  
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) (NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	200 399	300 599	400 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	.0	10.8	10.8	8.1	.0	2.7	.0	32.4	67.6	37	
06009	.0	.0	2.9	8.6	22.9	17.1	2.9	2.9	.0	.0	57.1	42.9	35	
12015	.0	.0	.0	.0	8.0	6.0	4.0	.0	.0	4.0	22.0	78.0	50	
18021	.0	.0	5.7	2.9	8.6	2.9	2.9	.0	.0	2.9	25.7	74.3	35	
TOT PCT	0 .0	0 .0	3 1.9	4 2.5	19 12.1	14 8.9	7 4.5	1 .6	1 .6	3 1.9	52 33.1	105 66.9	157 100.0	

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	.8	31.1	68.0	122
06009	.0	.0	.5	.0	23.9	75.7	219
12015	.0	.0	.7	.0	19.3	80.0	150
18021	.0	.0	.0	3.7	27.9	68.5	219
TOT	0	0	2	9	180	518	709
PCT	.0	.0	.3	1.3	25.4	73.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET) (NH >4/8) BY HOUR

HOUR (GMT)	<150 <500 FT	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	.0	34.3	65.7	35
06009	.0	2.9	11.4	45.7	42.9	35
12015	.0	.0	.0	22.0	78.0	50
18021	.0	6.5	12.9	16.1	71.0	31
TOT	0	3	8	44	99	151
PCT	.0	2.0	5.3	29.1	65.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.7	.3	.3	.0	4	1.3
85/89	.0	.0	.0	.0	.7	4.0	1.3	.7	20	6.7
80/84	.0	.0	.0	.0	.0	17.2	46.1	15.5	234	78.0
75/79	.0	.0	.0	.0	.0	.0	5.7	7.4	39	13.1
TOTAL	0	0	0	0	4	64	159	70	297	100.0
PCT	.0	.0	.0	.0	1.3	21.5	53.5	23.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.7	.0	.0	.3	.0	.0	.0	.0	.3
85/89	1.5	1.0	.3	.7	.3	.0	.3	1.2	.0	1.3
80/84	25.5	17.7	6.2	4.4	2.9	4.0	3.2	13.0	.0	2.4
75/79	2.0	.1	.6	1.0	2.0	1.0	1.7	4.4	.0	.3
TOTAL	29.0	19.4	7.2	6.1	9.2	5.0	5.2	18.5	.0	4.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	87	84	81	77	73	73	80.7	186
06009	92	91	88	83	78	76	75	83.2	422
12015	84	83	84	82	79	77	76	81.8	211
18021	85	84	83	81	77	74	71	80.8	334
TOT	92	89	86	82	78	75	71	81.8	1173

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	14.7	51.5	33.8	87	68		
06009	.0	.0	4.3	30.9	31.1	13.8	82	94		
12015	.0	.0	.0	28.6	38.6	12.9	83	70		
18021	.0	.0	.0	10.3	37.7	32.0	87	97		
TOT	0	0	4	69	180	76	64	329		



PERIOD: (PRIMARY) 1914-1973  
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TEMP DIF	73 76	77 80	81 84	85 88	89 92	TOT FOG	N FOG	NO FOG
9/10	.0	.0	.0	.0	.7	2	.0	.7
7/8	.0	.0	.0	.2	.3	1	.0	.3
6	.0	.0	.0	.3	.7	3	.0	1.0
5	.0	.0	.3	.7	1.0	4	.0	2.0
4	.0	.0	.3	1.0	.0	4	.0	1.3
3	.0	.0	.3	1.4	.0	5	.0	1.7
2	.0	.0	3.0	1.7	.3	15	.0	5.0
1	.0	.7	4.7	1.4	.0	20	.3	6.3
0	.0	2.0	14.3	1.3	.0	33	.7	16.0
-1	.0	5.0	15.6	.7	.0	44	.7	20.6
-2	.0	7.3	15.6	.0	.0	69	.7	22.3
-3	.0	2.3	3.3	.0	.0	17	.0	5.6
-4	.0	4.7	3.7	.0	.0	25	.3	8.0
-5	.0	1.0	2.0	.0	.0	9	.0	3.0
-6	.0	.7	.0	.0	.0	2	.0	.7
-7/-8	1.0	.3	.3	.0	.0	5	.0	1.7
-11/-13	.0	.3	.0	.0	.0	1	.0	.3
TOTAL	3		191		9		8	293
	73		25			301		
PCT	1.0	24.3	63.5	8.3	3.0	100.0	2.7	97.3

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	NE						PCT
								1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	7.9	.0	.0	.0	.0	7.9	1.7	7.5	.0	.0	.0	.0	9.2
1-2	.0	17.5	7.5	.0	.0	.0	25.0	.0	7.1	2.5	.0	.0	.0	9.6
3-4	.0	6.3	5.8	.0	.0	.0	12.1	.0	3.3	1.7	.0	.0	.0	5.0
5-6	.0	.0	3.3	.0	.0	.0	3.3	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	31.7	16.7	.0	.0	.0	48.3	1.7	17.4	4.2	.0	.0	.0	23.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	SE						PCT
								1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	2.9	.0	.0	.0	.0	2.9	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.3	.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0
3-4	.0	1.7	.0	.0	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
28-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.8	.0	.0	.0	.0	5.8	.0	.0	.0	.0	.0	.0	.0

PERIOD: (OVER-ALL) 1963-1973

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	.0	.0	.0	.0	.0	1.7
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	.0	.0	.0	.0	.0	1.7
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3	.0	.0	.0	.0	.0	3.3

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	.0	.0	.0	.0	.0	.0	.0	1.7	5.0	.0	.0	.0	.0	.0	6.7	
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.8	.0	.0	.0	.0	.0	5.8	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.2	4.2	.0	.0	.0	.0	4.6	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	1.7	11.3	4.2	.0	.0	.0	.0	17.1	98.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.0	23.3	.0	.0	.0	.0	28.3	
1-2	.0	33.3	10.0	.0	.0	.0	43.3	
3-4	.0	13.3	11.7	.0	.0	.0	25.0	
5-6	.0	.0	3.3	.0	.0	.0	3.3	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.0	70.0	25.0	.0	.0	.0	100.0	60

PERIOD: (OVER-ALL) 1949-1973

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	19.5	35.2	15.6	2.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	93	2
6-7	.0	1.6	3.9	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	3
8-9	.0	.0	.8	1.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	4
10-11	.0	1.6	1.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	3
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	12.5	3.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	0
TOTAL	41	53	28	6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	128	2
PCT	32.0	41.4	21.9	4.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1914-1972  
(OVER-ALL) 1857-1972

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.65 105.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG MO PCPN	FOG MO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	1.4	5.5	2.1	.0	.0	.0	.0	9.0	.0	1.4	9.7	.0	.0	.0	81.4
NE	3.5	2.3	.0	.0	.0	.0	2.3	8.2	.0	3.5	1.2	.0	.0	.0	88.3
E	2.9	1.4	.0	.0	.0	.0	.0	4.3	.0	2.9	.0	.0	.0	.0	92.9
SE	.0	3.6	.0	.0	.0	.0	.0	3.6	3.6	1.8	.0	.0	.0	.0	90.9
S	4.0	5.7	.0	.0	.0	.0	.0	9.7	4.0	.0	.0	.0	.0	.0	86.4
SW	12.5	8.3	.0	.0	.0	.0	2.1	22.9	5.2	4.2	.0	.0	.0	.0	67.7
W	13.3	4.1	.0	.0	.0	.0	2.0	19.4	4.1	4.1	.0	.0	.0	.0	72.4
NW	4.7	4.7	1.2	.0	.0	.0	.0	10.5	.0	4.7	4.7	.0	4.7	.0	75.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.9	.0	.0	.0	.0	.0	.0	2.9	2.9	8.6	.0	.0	.0	.0	85.7
TOT PCT	4.1	3.8	.3	.0	.0	.0	.6	8.8	2.2	3.1	1.6	.0	.3	.0	84.3
TOT OBS:	318														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN CHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG MO PCPN	FOG MO PCPN PAST HR	SMOKE HAZF	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00003	4.9	3.7	.0	.0	.0	.0	.0	8.6	3.7	.0	.0	.0	.0	.0	.0	87.7
06009	7.0	8.0	.0	.0	.0	.0	.0	15.0	1.0	1.0	3.0	.0	.0	.0	.0	80.0
12015	5.3	2.7	1.3	.0	.0	.0	1.3	10.7	.0	6.7	1.3	.0	.0	.0	.0	82.7
18021	5.0	3.0	.0	.0	.0	.0	1.0	9.0	3.0	7.0	4.0	.0	1.0	.0	.0	77.0
TOT PCT TOT OBS	5.6 356	4.5	.3	.0	.0	.0	.6	11.0	2.0	3.7	2.2	.0	.3	.0	.0	81.5

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WNO DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FRFQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	2.7	6.8	.7	.1	.0	.0		10.2	5.5		10.0	4.2	10.9	11.5	10.8	4.5	11.1	7.5
NE	3.8	8.2	.7	.0	.0	.0		12.7	5.3		9.7	14.6	10.5	16.7	13.6	22.7	14.1	12.1
E	3.0	7.8	.3	.0	.0	.0		11.1	5.4		10.8	8.3	11.0	12.2	9.3	36.4	9.4	12.9
SE	3.5	10.8	.2	.1	.0	.0		14.5	5.1		19.0	20.8	10.3	10.4	16.3	18.2	19.8	15.0
S	3.2	6.9	.5	.1	.0	.0		10.7	5.6		15.2	8.3	8.9	7.0	9.6	13.6	11.8	11.4
SW	3.2	4.8	.4	.1	.0	.0		8.5	5.3		9.0	12.5	12.1	11.3	6.4	.0	3.9	8.6
W	2.2	4.9	.5	.3	.0	.0		7.9	6.2		7.3	4.2	13.5	6.5	6.1	.0	6.2	6.8
NW	1.8	5.5	.3	.2	.0	.0		7.7	6.0		7.0	29.2	11.9	8.7	3.3	4.5	5.9	5.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	16.7							16.7	.0		12.0	.0	10.9	15.7	22.6	.0	21.3	20.7
TOT OBS	385	534	33	7	0	0	959		4.6		150	12	202	115	164	11	165	140
TOT PCT	40.1	55.7	3.4	.7	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	7.5	2.6	.1	.0	.0		10.2	5.5	9.6	11.1	10.4	9.4		
NE	9.4	3.3	.0	.0	.0		12.7	5.3	10.0	12.8	14.1	13.2		
E	8.0	3.0	.0	.0	.0		11.1	5.4	10.8	11.4	11.0	11.0		
SE	11.8	2.7	.0	.1	.0		14.5	5.1	19.1	10.3	16.4	15.4		
S	7.6	2.8	.2	.1	.0		10.7	5.6	14.7	8.2	9.9	11.6		
SW	6.1	2.3	.2	.0	.0		8.5	5.3	9.3	11.8	6.0	6.1		
W	5.6	2.0	.4	.1	.0		7.9	6.2	7.1	11.0	5.7	6.5		
NW	5.6	1.9	.1	.2	.0		7.7	6.0	8.6	10.7	5.3	5.5		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	16.7						16.7	.0	11.1	12.6	21.1	21.3		
TOT OBS	750	198	8	3	0	959		4.6	162	317	175	305		
TOT PCT	78.2	20.6	.8	.3	.0		100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1914-1972  
(OVER-ALL) 1857-1972

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	11.1	22.8	61.7	4.3	.0	.0	.0	4.9	100.0	162
06009	12.6	26.2	57.1	2.5	1.6	.0	.0	4.8	100.0	317
12015	21.1	21.1	55.4	2.3	.0	.0	.0	4.0	100.0	175
18021	21.3	12.3	51.1	4.6	.7	.0	.0	4.5	100.0	305
TOT	160	225	534	33	7	0	0	4.6		959
PCT	16.7	23.5	55.7	3.4	.7	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.1	2.1	5.8	.0		4.3
NE	2.2	5.8	6.3	.0		4.2
E	1.9	6.5	8.9	.0		3.9
SE	2.7	2.9	5.8	2.7		5.0
S	1.9	2.6	8.6	1.9		5.4
SW	.2	.7	4.3	1.7		6.2
W	.0	.7	6.3	1.2		6.1
NW	2.7	.7	2.4	.0		2.6
VAR	.0	.0	.0	.0		.0
CALM	5.5	4.1	3.4	1.4		3.4
TOT OBS	18	38	67	13	146	4.6
TOT PCT	19.2	26.0	45.9	8.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	450	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.9	.0	.7	.0	.0	.0	.0	8.4	
.0	.0	.0	.0	2.7	.7	.0	.0	.0	.0	11.0	
.0	.0	.0	.0	.7	.7	.0	.0	.0	.0	9.9	
.0	.0	.0	.7	2.2	1.5	.0	.0	.0	.0	9.8	
.0	.0	.5	1.4	2.7	3.6	.0	.0	.0	.0	6.7	
.0	.0	.2	1.0	1.2	1.0	.0	.0	.0	.0	3.4	
.0	.0	.0	1.0	.0	.5	1.2	.0	.0	.0	5.5	
.0	.0	.0	.5	.0	.9	.2	.0	.0	.0	4.3	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.7	2.1	.7	.0	.0	.0	.0	.7	10.3	
.0	2	11	15	14	2	0	0	1	101	146	
.0	.0	1.4	7.5	10.3	9.6	1.4	.0	.0	.7	69.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.7	.7	.7	.7	.7	.7	.7	.7
= OR >5000	.7	.7	.7	.7	.7	.7	.7	.7
= OR >3500	1.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0
= OR >2000	10.7	12.1	12.1	12.1	12.1	12.1	12.1	12.1
= OR >1000	19.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1
= OR >600	26.2	28.9	29.5	30.2	30.2	30.2	30.2	30.2
= OR >300	26.2	30.2	30.9	31.5	31.5	31.5	32.2	32.2
= OR >150	26.2	30.2	30.9	31.5	31.5	31.5	32.2	32.2
= OR >0	26.2	30.2	30.9	31.5	31.5	31.5	32.2	32.2
TOTAL	39	45	46	47	47	47	48	48

TOTAL NUMBER OF OBS: 149

PCT FREQ NH <5/8: 67.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
8.1	11.3	21.3	17.5	10.6	7.5	10.6	6.9	6.3	.0	160

PERIOD: (PRIMARY) 1914-1972  
(OVER-ALL) 1857-1972

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.05 105.0E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSRY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS	
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	NO PCP	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3	.6		
	TOT %	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3	.6		
2<5	PCP	.0	.0	.0	.0	.0	.7	.2	.0	.0	.0	.9		
	NO PCP	.0	.0	.0	.0	.0	.7	.2	.0	.0	.0	.0		
	TOT %	.0	.0	.0	.0	.0	.7	.2	.0	.0	.0	.9		
5<10	PCP	.4	.6	.2	.6	1.0	1.0	1.3	.3	.0	.3	6.0		
	NO PCP	3.0	3.0	4.2	6.6	2.4	1.0	2.0	2.2	.0	1.6	26.1		
	TOT %	9.6	3.6	4.4	7.2	3.5	2.0	3.3	2.5	.0	1.9	32.1		
10+	PCP	.4	.5	.3	.0	.3	.0	.0	.4	.0	.0	1.9		
	NO PCP	7.4	9.4	6.3	10.1	9.7	4.8	4.2	3.9	.0	8.8	64.5		
	TOT %	7.8	9.8	6.6	10.1	10.1	4.8	4.2	4.2	.0	8.8	66.4		
TOT OBS														318
TOT PCT														11.4 13.4 11.0 17.3 13.8 7.4 7.7 6.8 .0 11.0 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSRY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	.3
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.3
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.0	.0	.0	.2	.0	.0	.1	.0	.2	.3	
2<5	0-3	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	.3	
	4-10	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.3	
	11-21	.0	.0	.0	.0	.0	.2	.1	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.3	.4	.0	.0	.2	1.0	
5<10	0-3	.3	.8	.3	.7	.0	.4	.3	.4	.0	1.2	4.4	
	4-10	1.3	1.1	2.2	3.3	1.7	.8	1.2	.9	.0		12.4	
	11-21	.5	.2	.0	.0	.3	.0	.2	.0	.0		1.3	
	22+	.0	.0	.0	.0	.0	.0	.2	.0	.0		.2	
	TOT %	2.0	2.1	2.5	3.9	2.2	1.3	1.8	1.3	.0	1.2	18.3	
10+	0-3	2.8	3.1	2.0	2.5	2.3	2.2	1.3	1.5	.0	16.8	34.3	
	4-10	5.2	6.0	5.3	9.8	7.4	3.7	3.1	3.4	.0		43.9	
	11-21	.3	.4	.3	.2	.2	.0	.4	.1	.0		1.8	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	8.2	9.5	7.6	12.5	9.8	5.9	4.8	4.9	.0	16.8	80.1	
TOT OBS													597
TOT PCT													10.4 11.6 10.1 16.4 12.1 7.6 7.0 6.4 .0 18.3 100.0

APRIL

PERIOD: (PRIMARY) 1914-1972  
(OVER-ALL) 1857-1972AREA 0005 BANGKA ISLAND NORTHWEST  
.65 105.0E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	8.5	17.0	8.5	.0	.0	.0	.0	34.0	66.0	47
06009	.0	.0	2.7	5.4	8.1	16.2	2.7	.0	.0	.0	35.1	64.9	37
12015	.0	.0	5.4	5.4	8.1	8.1	.0	.0	.0	2.7	29.7	70.3	37
18021	.0	.0	.0	10.8	2.7	5.4	2.7	.0	.0	.0	21.6	78.4	37
TOT	0	0	3	12	15	15	2	0	0	1	48	110	158
PCT	.0	.0	1.9	7.6	9.5	9.5	1.3	.0	.0	.6	30.4	69.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	1.7	16.4	81.9	116
06009	.5	.0	.0	1.1	20.0	78.4	190
12015	.4	.0	.8	.0	10.3	30.7	131
18021	.5	.0	1.0	1.0	23.2	74.2	198
TOT	2	0	3	6	127	497	635
PCT	.3	.0	.5	.9	20.0	78.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	8.5	25.5	66.0	47
06009	.0	2.9	8.6	28.6	62.9	35
12015	.0	5.9	11.8	20.6	67.6	34
18021	.0	.0	12.1	12.1	75.8	33
TOT	0	3	15	33	101	149
PCT	.0	2.0	10.1	22.1	67.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	7.1	8.2	6.0	.0	38	16.3
80/84	.0	.0	.0	.0	1.3	27.3	49.4	6.9	188	79.8
75/79	.0	.0	.0	.0	.0	2.1	1.7	.0	9	3.9
TOTAL	0	0	0	0	8	71	134	20	233	100.0
PCT	.0	.0	.0	.0	3.4	30.5	57.5	8.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
2.4	2.5	3.1	1.9	2.7	.3	.9	1.3	.0	1.3
9.3	9.9	10.0	15.3	10.7	4.5	5.9	3.9	.0	10.3
.0	.0	.0	1.3	.0	1.2	1.4	.0	.0	.0
11.7	12.3	13.1	18.6	13.4	6.0	8.2	5.2	.0	11.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	93	90	86	82	78	76	75	82.2	165
06009	95	92	89	84	79	76	75	83.8	334
12015	89	86	85	83	80	78	78	82.7	177
18021	88	85	84	82	79	76	76	81.9	303
TOT	95	90	87	83	79	76	75	82.4	979

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	31.3	56.3	12.3	83	64
06009	.0	.0	9.7	41.7	40.3	8.3	79	72
12015	.0	.0	4.0	28.0	58.0	12.0	82	50
18021	.0	.0	.0	23.1	69.2	7.7	83	78
TOT	0	0	9	81	148	26	82	264

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TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
11/13	.0	.0	.3	.0	.0	1	.0	.3
7/8	.0	.0	.3	.3	.0	2	.0	.7
6	.0	.0	.0	.0	.3	1	.0	.3
5	.0	.0	.0	.3	.0	1	.0	.3
4	.0	.0	.3	2.4	.3	9	.3	2.7
3	.0	.0	1.4	.7	.3	7	.0	2.4
2	.0	.0	2.7	3.4	1.0	21	.0	7.1
1	.0	.3	3.1	4.1	.0	22	.0	7.5
0	.0	.3	11.9	4.1	.0	48	.3	15.9
-1	.0	.3	17.3	2.4	.0	59	1.4	18.6
-2	.0	1.0	12.2	1.0	.0	42	.3	13.9
-3	.0	1.4	8.5	.0	.0	29	.3	9.5
-4	.0	2.4	8.8	.3	.0	34	.0	11.5
-5	.0	1.7	2.0	.0	.0	11	.0	3.7
-6	.0	.3	.3	.0	.0	2	.0	.7
-7/-8	.3	1.4	.0	.0	.0	5	.0	1.7
-9/-10	.0	.3	.0	.0	.0	1	.0	.3
TOTAL	1		204		6		8	287
PCT	.3	28	56		295	100.0	2.7	97.3
		9.5	69.2	19.0	2.0			

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	1.5	.0	.0	.0	.0	1.5	.0	.4	.0	.0	.0	.0	.4
1-2	.0	1.1	.0	.0	.0	.0	1.1	1.5	9.8	1.5	.0	.0	.0	12.9
3-4	.0	1.5	.0	.0	.0	.0	1.5	.0	3.0	.0	.0	.0	.0	3.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.2	.0	.0	.0	.0	4.2	1.4	13.3	1.5	.0	.0	.0	16.3

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	1.5	1.1	.0	.0	.0	.0	2.7	1.5	6.1	.0	.0	.0	.0	7.6
1-2	.0	11.7	1.5	.0	.0	.0	13.3	1.5	8.7	.0	.0	.0	.0	10.2
3-4	.0	.0	.0	.0	.0	.0	.0	.0	3.0	.0	.0	.0	.0	3.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	1.5	.0	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.5	14.4	1.5	.0	.0	.0	17.4	3.0	17.8	.0	.0	.0	.0	20.8

PERIOD: (OVER-ALL) 1963-1972

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.65 105.0E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	3.0	.0	.0	.0	.0	3.0
1-2	1.1	9.8	.0	.0	.0	.0	11.0	.0	2.7	.0	.0	.0	.0	3.0
3-4	.0	1.1	.0	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	11.0	.0	.0	.0	.0	12.1	.4	6.1	.0	.0	.0	.0	6.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.5	.0	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	1.5
5-6	.0	.0	.0	1.5	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.5	.0	1.5	.0	.0	3.0	1.5	.0	.0	.0	.0	.0	1.5	81.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	20.9	11.9	.0	.0	.0	.0	32.8	
1-2	6.0	44.8	9.0	.0	.0	.0	59.7	
3-4	1.5	9.0	.0	.0	.0	.0	10.4	
5-6	.0	.0	.0	1.5	.0	.0	1.5	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	1.5	.0	.0	.0	.0	1.5	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	28.4	67.2	9.0	1.5	.0	.0	100.0	67

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
46	17.6	36.1	5.9	1.7	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	74	2
6-7	.0	.0	5.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	3
8-9	.0	.0	.8	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	4
10-11	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	2
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDEX	27.7	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	35	0
TOTAL	34	44	14	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	119	1
PCT	45.4	36.7	11.8	3.4	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	



PERIOD: (PRIMARY) 1912-1972  
(OVER-ALL) 1857-1972

MAY

AREA 0005 BANGKA ISLAND NORTHWEST  
.05 105.02

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	PRZG PCPN	SNOW	OTHER FAZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG MEA
N	.0	9.8	.0	.0	.0	.0	.0	9.8	.0	17.1	4.9	.0	.0	.0	88.3
NE	2.9	17.4	.0	.0	.0	.0	.0	20.3	.0	4.3	.0	.0	.0	.0	75.4
E	4.4	5.9	.0	.0	.0	.0	.0	10.3	.0	4.4	.0	.0	.0	.0	82.4
SE	2.6	.7	.0	.0	.0	.0	.0	3.3	1.3	5.3	.0	.0	.0	.0	90.1
S	.0	5.7	.0	.0	.0	.0	.0	5.7	.0	2.9	.0	.0	.0	.0	91.4
SW	2.4	2.4	.0	.0	.0	.0	.0	4.8	.0	4.8	.0	.0	.0	.0	90.4
W	2.4	.0	4.9	.0	.0	.0	.0	7.3	.0	4.9	.0	.0	.0	.0	87.8
NW	17.8	.0	.0	.0	.0	.0	.0	17.8	.0	8.9	4.4	.0	.0	.0	68.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
C/LM	.0	.0	.0	.0	.0	.0	.0	.0	4.2	8.3	.0	.0	.0	.0	87.5
TOT PCT	2.8	3.6	.4	.0	.0	.0	.0	6.3	.8	5.6	.4	.0	.4	.0	85.9
TOT OBS	249														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	PRZG PCPN	SNOW	OTHER FAZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG MEA
00003	7.0	5.3	1.8	.0	.0	.0	.0	14.0	.0	.0	.0	.0	1.8	.0	84.2
06009	4.8	4.8	1.2	.0	.0	.0	.0	10.7	.0	.0	1.2	.0	.0	.0	88.1
12015	1.5	1.5	.0	.0	.0	.0	.0	3.1	1.5	7.7	.0	.0	.0	.0	87.7
18021	2.4	7.1	.0	.0	.0	.0	.0	9.5	1.2	14.3	4.8	.0	.0	.0	70.2
TOT PCT	3.8	4.8	.7	.0	.0	.0	.0	9.3	.7	3.9	1.7	.0	.3	.0	82.1
TOT OBS	290														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)						48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	00					03	06	09	12	15	18	21	
N	1.7	2.8	.0	.0	.0	.0		4.6	4.5	2.5	.0	3.2	7.1	7.5	.0	4.1	3.1	
NE	1.9	4.2	.2	.0	.0	.0		6.2	5.3	4.9	.0	4.0	5.7	8.6	.0	9.2	5.0	
E	2.4	8.4	.9	.1	.0	.0		11.8	6.2	7.4	17.9	8.8	11.5	15.5	60.0	15.3	9.5	
SE	3.5	19.2	1.5	.1	.0	.0		24.2	6.0	30.3	32.1	24.5	17.9	23.3	20.0	23.6	25.6	
S	4.1	13.9	1.7	.0	.0	.0		19.7	6.3	20.4	21.4	24.9	23.8	12.4	.0	15.5	22.5	
SW	2.8	6.6	1.4	.0	.0	.0		10.8	6.2	14.8	14.3	13.9	8.7	8.1	10.0	9.9	8.8	
W	1.4	3.3	.7	.0	.0	.0		5.4	6.4	7.9	.0	6.0	5.6	4.5	10.0	4.1	4.0	
NW	1.9	2.2	.4	.0	.0	.0		4.3	4.9	4.8	.0	2.7	8.0	4.2	.0	3.4	4.2	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	13.0							13.0	.0	7.0	14.3	11.9	11.8	13.8	.0	14.8	16.8	
TOT OBS	321	595	66	1	0	0	983		5.3		142	7	201	144	177	5	176	131
TOT PCT	32.7	60.5	4.7	.1	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	3.8	.8	.0	.0	.0		4.6	4.5	2.3	4.9	7.3	3.7	
NE	4.5	1.7	.0	.0	.0		6.2	5.3	4.7	4.7	8.4	7.4	
E	7.4	4.2	.2	.0	.0		11.8	6.2	7.9	9.9	16.8	12.9	
SE	13.3	10.8	.2	.0	.0		24.2	6.6	30.4	21.7	23.2	24.4	
S	12.1	7.4	.2	.0	.0		19.7	6.3	20.5	24.4	12.1	18.5	
SW	6.9	3.7	.2	.0	.0		10.8	6.2	14.8	11.7	8.1	9.4	
W	3.4	1.8	.3	.0	.0		5.4	6.4	7.6	5.8	4.7	4.3	
NW	3.5	.8	.0	.0	.0		4.3	4.9	4.3	4.6	4.1	3.7	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	13.0						13.0		7.4	11.9	13.4	13.6	
TOT OBS	667	307	9	0	0	983		5.3	149	345	182	307	
TOT PCT	67.9	31.2	.9	.0	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1912-1972  
(COVER-ALL) 1857-1972

MAY

AREA 0005 BANGKA ISLAND NORTHWEST  
.65 105.0E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	7.4	18.1	66.4	8.1	.0	.0	.0	5.7	100.0	149
0600	11.9	22.0	58.6	7.5	.0	.0	.0	5.3	100.0	345
1200	15.4	17.6	61.5	5.5	.0	.0	.0	5.3	100.0	182
1800	15.6	18.9	59.3	5.9	.3	.0	.0	5.2	100.0	307
TOT	128	193	595	66	1	0	0	5.3		983
PCT	13.0	19.6	60.5	6.7	.1	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL OBS	MEAN CLOUD COVER
N	2.3	.0	.5	.0		2.0
NE	2.3	.5	.0	1.8		4.2
E	3.8	2.7	5.6	.9		4.2
SE	5.4	9.5	15.8	1.8		4.5
S	2.9	.9	7.7	.7		4.6
SW	.5	2.7	6.8	2.0		5.6
W	.0	.9	6.1	1.6		5.7
NW	.0	1.8	1.4	1.1		5.4
VAR	.0	.0	.0	.0		.0
CALM	1.8	4.5	3.6	.0		4.2
TOT OBS	22	26	52	11	111	4.7
TOT PCT	19.8	23.4	46.8	9.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM) >4/8  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NM <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	2.3
NE	.0	.0	.0	.9	.9	.0	.0	.0	.0	.0	.0	2.7
E	.0	.0	.0	.0	1.6	1.6	.0	.0	.0	.0	.0	9.9
SE	.0	.0	.9	1.8	.2	1.1	2.0	.0	.0	.0	.0	26.4
S	.0	.0	.0	.0	.9	1.6	1.4	.0	.0	.0	.0	7.9
SW	.0	.0	.0	.0	3.2	2.3	.2	.0	.0	.0	.0	6.3
W	.0	.0	.0	.0	2.9	.7	.0	.0	.0	.0	.0	5.9
NW	.0	.0	.0	1.4	.2	.0	.9	.0	.0	.0	.0	1.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	9.0
TOT OBS	0	0	1	5	11	9	5	0	0	0	80	111
TOT PCT	.0	.0	.9	4.5	9.9	8.1	4.5	.0	.0	.0	72.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.0	.0	.0	.0	.0	.0	.0	.0
>5000	.0	.0	.0	.0	.0	.0	.0	.0
>3500	1.7	3.5	4.3	4.3	4.3	4.3	4.3	4.3
>2000	7.8	9.6	12.2	12.2	12.2	12.2	12.2	12.2
>1000	17.4	20.0	22.6	22.6	22.6	22.6	22.6	22.6
>600	21.7	24.3	27.0	27.0	27.0	27.0	27.0	27.0
>300	22.6	25.2	27.8	27.8	27.8	27.8	27.8	27.8
>150	22.6	25.2	27.8	27.8	27.8	27.8	27.8	27.8
>0	22.6	25.2	27.8	27.8	27.8	27.8	27.8	27.8
TOTAL	26	29	32	32	32	32	32	32

TOTAL NUMBER OF OBS: 115

PCT FREQ NM <5/8: 72.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	TOTAL OBS
	2.3	20.0	23.8	14.6	10.0	9.2	7.7	7.7	4.6	130

PERIOD: (PRIMARY) 1912-1972  
(OVER-ALL) 1957-1972

MAY

AREA 0005 BANGKA ISLAND NORTHWEST  
.65 105.0E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS	
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
2<5	PCP	.0	.2	.2	.4	.0	.0	.0	.0	.0	.0	.0		
	NO PCP	.0	.0	.0	.2	.3	.9	.0	.0	.0	.0	.4	2.4	
	TOT %	.0	.2	.8	.6	.3	.9	.0	.0	.0	.0	.4	3.2	
5<10	PCP	.4	.8	.8	.2	.6	.2	.2	.4	.0	.0	.0	3.6	
	NO PCP	1.2	2.6	3.5	8.5	4.0	1.8	1.8	1.0	.0	3.2	27.7		
	TOT %	1.6	3.4	4.3	8.7	4.6	2.0	2.0	1.4	.0	3.2	31.3		
10+	PCP	.0	.4	.4	.4	.2	.2	.4	.4	.0	.0	.0	2.4	
	NO PCP	2.5	2.9	8.1	20.8	8.9	5.2	9.8	2.7	.0	6.0	63.1		
	TOT %	2.5	3.3	8.5	21.2	9.1	5.4	6.2	3.1	.0	6.0	65.5		
TOT OBS														249
TOT PCT														100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	0-3	.0	.1	.1	.0	.2	.2	.0	.0	.0	.0	.0	.8
	4-10	.0	.0	.2	.2	.1	.2	.0	.0	.0	.0	.0	.8
	11-21	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.1	.4	.3	.3	.4	.0	.0	.0	.0	.2	1.7
5<10	0-3	.2	.2	.3	.1	.8	.3	.4	.3	.0	1.5	4.0	
	4-10	.7	1.2	1.5	4.0	1.9	.9	.3	.3	.0		11.0	
	11-21	.0	.1	.4	.3	.0	.0	.2	.2	.0		1.1	
	22+	.0	.0	.1	.1	.0	.0	.0	.0	.0		.2	
	TOT %	.9	1.6	2.2	4.5	2.6	1.1	1.0	.8	.0	1.5	16.3	
10+	0-3	1.6	.9	2.5	3.7	2.7	2.4	1.2	1.2	.0	9.8	26.1	
	4-10	1.7	1.6	5.0	19.1	12.9	6.0	2.8	1.7	.0		50.9	
	11-21	.0	.2	.5	1.6	1.4	1.0	.2	.3	.0		5.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	3.3	2.7	8.1	24.3	17.0	9.4	4.3	3.3	.0	9.8	82.0	
TOT OBS													529
TOT PCT													100.0

PERIOD: (PRIMARY) 19.2-1972  
(OVER-ALL) 185-1972

MAY

AREA 0005 BANGKA ISLAND NORTHWEST  
.05 105.0E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	190 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	7.4	14.8	7.4	7.4	.0	.0	.0	37.0	63.0	27
06009	.0	.0	.0	6.5	12.9	12.9	.0	.0	.0	.0	32.3	67.7	31
12015	.0	.0	.0	.0	6.1	6.1	3.0	.0	.0	.0	15.2	84.8	33
18021	.0	.0	3.0	3.0	6.1	3.0	6.1	.0	.0	.0	21.2	78.8	33
TOT	0	0	1	5	12	9	5	0	0	0	32	92	124
PCT	.0	.0	.8	4.0	9.7	7.3	4.0	.0	.0	.0	25.8	74.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	.0	21.4	78.6	98
06009	.6	.0	.0	2.3	17.4	79.7	172
12015	.0	.0	.0	2.5	16.1	81.4	118
18021	.5	.0	.0	1.1	20.9	77.5	182
TOT	2	0	0	9	108	451	570
PCT	.4	.0	.0	1.6	18.9	79.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSRY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	8.0	32.0	60.0	25
06009	.0	.0	10.3	24.1	65.5	29
12015	.0	.0	6.5	12.9	80.6	31
18021	.0	3.3	10.0	13.3	76.7	30
TOT	0	1	10	23	82	115
PCT	.0	.9	8.7	20.0	71.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	1.0	.0	.0	.0	2	1.0
85/89	.0	.0	.0	.0	1.4	13.8	4.3	1.4	44	21.0
80/84	.0	.0	.0	.0	1.6	10.5	43.3	10.5	156	74.3
75/79	.0	.0	.0	.0	.0	1.9	1.9	.0	8	3.8
TOTAL	0	0	0	0	7	70	104	29	210	100.0
PCT	.0	.0	.0	.0	3.3	33.3	49.5	13.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.5	.0	.0	.5	.0	.0	.0	.0
1.5	1.1	1.8	10.1	2.8	.5	.5	.5	.0	2.4
2.9	5.5	11.0	21.4	9.9	6.4	7.1	4.4	.0	5.7
.0	.0	.8	.2	1.3	.7	.2	.5	.0	.0
4.4	6.5	14.0	31.8	13.8	8.1	7.9	5.4	.0	8.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	92	88	86	82	78	77	73	82.4	154
06009	93	91	88	84	80	77	75	84.0	342
12015	87	86	85	83	80	78	78	83.1	181
18021	87	85	84	83	80	78	78	82.5	313
TOT	95	88	87	83	80	78	73	83.1	990

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	4.2	22.9	52.1	20.8	84	48		
06009	.0	.0	7.2	44.9	42.0	5.8	79	69		
12015	.0	.0	.0	34.0	49.1	17.0	82	53		
18021	.0	.0	2.6	20.8	55.8	20.8	84	77		
TOT	0	0	9	76	123	39	82	247		

PERIOD: (PRIMARY) 1912-1972  
(OVER-ALL) 1857-1972

MAY

AREA 0005 BANGKA ISLAND NORTHWEST  
.65 105.0E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	77 80	81 84	85 88	89 92	TOT	# FOG	NO FOG
7/8	.0	.5	.0	.5	2	.0	.9
5	.0	.5	.0	.9	3	.0	1.4
4	.0	.9	.0	.9	4	.5	1.4
3	.0	.0	1.8	.0	4	.0	1.8
2	.0	1.4	3.6	.0	11	.0	5.0
1	.0	4.5	5.0	.0	21	.9	8.1
0	.0	8.6	5.9	.0	32	.9	13.0
-1	.0	10.9	1.6	.0	28	.0	12.7
-2	.0	18.2	1.4	.0	43	.0	19.5
-3	1.8	9.1	2.3	.0	29	.0	13.2
-4	.9	5.9	.5	.0	16	.0	7.3
-5	1.8	4.1	.0	.0	13	.0	5.9
-6	1.8	.5	.0	.0	5	.0	2.3
-7/-8	3.2	.5	.0	.0	8	.0	3.6
-9/-10	.5	.0	.0	.0	1	.0	.5
TOTAL	22	49	5	220	2.3	97.7	
PCT	10.0	65.5	22.3	2.3	100.0	2.3	97.7

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	1.4	1.9	.0	.0	.0	.0	3.2	.5	.0	.0	.0	.0	.0	.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.4	1.9	.0	.0	.0	.0	3.2	.5	.0	.0	.0	.0	.0	.5

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	6.0	.0	.0	.0	.0	6.0
1-2	.0	3.2	3.2	.0	.0	.0	6.5	.0	13.9	2.8	.0	.0	.0	16.7
3-4	.0	1.9	1.4	.0	.0	.0	3.2	.0	9.3	6.0	.0	.0	.0	15.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.1	4.6	.0	.0	.0	9.7	.0	29.2	8.8	.0	.0	.0	38.0

PERIOD: (OVER-ALL) 1963-1972

MAY

TABLE 18 (CONT)

AREA 0005 BANGKA ISLAND NORTHWEST  
.65 105.0E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	5.1	.0	.0	.0	.0	5.1	1.9	.0	.0	.0	.0	.0	1.9	
1-2	.0	5.1	3.2	.0	.0	.0	8.3	.0	6.5	.0	.0	.0	.0	6.5	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	10.2	3.2	.0	.0	.0	13.4	1.9	6.5	.0	.0	.0	.0	8.3	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	3.7	1.9	.0	.0	.0	.0	5.6	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	4.6	.0	.0	.0	.0	4.6	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.7	6.5	.0	.0	.0	.0	10.2	.0	.0	.0	.0	.0	.0	.0	83.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OPS
<1	22.2	13.0	.0	.0	.0	.0	35.2	
1-2	1.9	35.2	9.3	.0	.0	.0	46.3	
3-4	.0	11.1	7.4	.0	.0	.0	18.5	
5-6	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	24.1	59.3	16.7	.0	.0	.0	100.0	54

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
4-6	23.0	37.0	15.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	76	2
6-7	.0	1.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3
8-9	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
13-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
INDET	18.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	C
TOTAL	41	40	17	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	1
PCT	41.0	40.0	17.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1912-1972  
(OVER-ALL) 1862-1972

JUNE

AREA 0009 BANGKA ISLAND NORTHWEST  
.65 105.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHR FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	12.5	25.0	.0	.0	.0	.0	.0	17.5	.0	.0	12.5	.0	.0	.0	50.0
NE	17.6	.0	.0	.0	.0	.0	.0	17.6	11.8	11.8	.0	.0	.0	.0	47.1
E	5.8	.0	.0	.0	.0	.0	.0	5.8	.0	13.1	2.9	.0	.0	.0	81.0
SE	.7	1.0	.0	.0	.0	.0	.0	1.7	.5	1.9	2.7	.0	.0	.0	93.2
S	1.2	1.7	.0	.0	.0	.0	.0	2.9	2.6	2.0	6.4	.0	.0	.0	86.0
SW	.0	8.2	.0	.0	.0	.0	.0	8.2	.0	.0	4.1	.0	.0	.0	87.6
W	40.0	.0	.0	.0	.0	.0	.0	40.0	.0	.0	.0	.0	.0	.0	60.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	10.0	.0	.0	.0	.0	.0	.0	10.0	.0	.0	.0	.0	.0	.0	90.0
TOT PCT	3.0	1.8	.0	.0	.0	.0	.0	4.8	1.2	3.0	3.9	.0	.0	.0	87.3
TOT OBS	332														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
00003	1.6	1.6	.0	.0	.0	.0	.0	3.1	1.6	.0	4.7	.0	.0	.0	90.6
06009	7.3	4.6	.0	.0	.0	.0	.0	11.9	.9	.9	3.7	.0	.0	.0	82.6
12015	2.5	1.3	.0	.0	.0	.0	.0	3.8	1.0	2.5	3.8	.0	.0	.0	90.0
18021	1.0	2.1	.0	.0	.0	.0	.0	3.1	1.0	8.2	5.2	.0	.0	.0	82.3
TOT PCT	3.4	2.6	.0	.0	.0	.0	.0	6.0	1.1	3.1	4.3	.0	.0	.0	85.7
TOT OBS	350														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.7	.7	.0	.0	.0	.0		1.4	3.5	.7	.0	.5	2.5	2.7	5.6	1.0	1.1	
NE	.8	1.7	.0	.0	.0	.0		2.5	4.6	1.1	.0	2.4	4.0	1.6	11.1	2.2	3.6	
E	1.7	8.4	.8	.0	.0	.0		10.9	6.2	10.6	.0	5.8	8.9	12.8	11.1	15.4	13.6	
SE	3.8	27.0	4.5	.0	.0	.0		37.3	7.5	39.9	53.1	39.4	35.3	38.2	38.9	37.4	31.0	
S	4.6	19.7	3.6	.0	.0	.0		27.8	6.7	27.0	46.9	31.9	30.4	24.1	16.7	23.9	28.8	
SW	.7	5.8	1.1	.0	.0	.0		7.6	7.2	8.7	.0	6.5	7.6	8.3	.0	8.3	7.2	
W	.5	1.9	.6	.0	.0	.0		3.1	7.5	2.8	.0	5.6	4.0	2.4	.0	1.0	2.2	
NW	1.4	1.0	.0	.0	.0	.0		2.4	3.7	4.3	.0	2.2	.7	2.1	5.6	1.9	3.6	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	7.0							7.0	.0	5.0	.0	5.8	6.5	7.7	11.1	8.9	8.7	
TOT OBS	205	640	121	0	0	0	960		6.4	141	8	207	138	168	9	157	138	
TOT PCT	21.2	66.3	12.5	.0	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	1.3	.1	.0	.0	.0		1.4	3.5	.7	1.3	2.8	1.0	
NE	2.2	.3	.0	.0	.0		2.5	4.6	1.0	3.0	2.1	2.9	
E	7.0	3.9	.0	.0	.0		10.9	6.2	10.1	7.0	12.7	14.7	
SE	18.1	18.9	.3	.0	.0		37.3	7.5	40.6	37.8	38.3	34.4	
S	16.0	11.5	.3	.0	.0		27.8	6.7	26.0	31.3	23.7	26.2	
SW	4.3	3.0	.3	.0	.0		7.6	7.2	8.2	7.0	7.9	7.8	
W	1.3	1.4	.1	.0	.0		3.1	7.5	2.7	4.9	2.3	1.5	
NW	2.2	.3	.0	.0	.0		2.4	3.7	4.0	1.6	2.3	2.7	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	7.0						7.0	.0	4.7	6.1	7.9	8.8	
TOT OBS	576	381	9	0	0	966		6.4	149	345	177	295	
TOT PCT	59.6	39.4	.9	.0	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1912-1972  
(OVER-ALL) 1862-1972

AREA 0005 BANGKA ISLAND NORTHWEST  
.65 105.0E

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000Z	4.7	14.8	66.4	14.1	.0	.0	.0	6.6	100.0	149
0600Z	6.1	14.8	68.1	13.0	.0	.0	.0	6.2	100.0	345
1200Z	7.1	15.0	68.8	11.3	.0	.0	.0	6.2	100.0	177
1800Z	8.8	13.9	65.4	11.9	.0	.0	.0	6.2	100.0	295
TOT	48	137	640	121	.0	.0	.0	6.4		966
PCT	7.0	14.2	66.3	12.5	.0	.0	.0	100.0		

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-6	7-7	8 & OBSO	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.0	.0		.0
NE	.0	.0	.0	.9		.0
E	2.7	4.5	2.7			3.4
SE	7.9	14.4	17.8	2.9		4.4
S	4.7	8.1	9.7	5.2		5.0
SW	2.7	1.8	5.0			4.4
W	.0	.9	1.5			6.7
NW	.0	.0	1.4	.0		6.3
VAR	.0	.0	.0	.0		.0
CALM	.9	.9	.9	1.8		5.2
TOT OBS	21	24	42	14	111	4.6
TOT PCT	18.9	30.6	37.8	12.6	100.0	

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT.) NH  $\geq 4/8$   
AND OCCURRENCE OF NH  $\leq 3/8$  BY WIND DIRECTION

000 149	150 299	300 599	400 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH ANY	45/8 HGT	TOTAL 085
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.9	
.0	.0	.0	.0	.0	.0	.0	.5	.0	.0		9.5	
.0	.0	.0	2.7	2.9	2.0	1.1	.5	.0	.2		33.6	
.0	.0	.0	.0	.7	1.6	1.1	.0	.0	.7		23.6	
.0	.0	.0	.0	.9	.0	1.4	.0	.0	.0		7.2	
.0	.0	.0	.9	.9	.5	.0	.0	.0	.0		.9	
.0	.0	.0	.0	.5	.0	.0	.0	.0	.0		.9	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
.0	.0	.0	.0	2.7	.0	.0	.0	.0	.0		1.8	
.0	.0	.0	.0	.9	.5	.4	.1	.0	.1		.87	
.0	.0	.0	3.6	8.1	4.5	3.6	.9	.9	.9		78.4	111 100.0

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM 24/8) AND VSBY (NM)

	VSBY (NM)								
	CEILING (FEET)	≥ OR ≥10	≥ OR ≥5	≥ OR ≥2	≥ OR ≥1	≥ OR ≥1/2	≥ OR ≥1/4	≥ OR ≥50YD	≥ OR ≥0
• OR ≥6500		.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8
• OR ≥5000		1.8	2.6	2.6	2.6	2.6	2.6	2.6	2.6
• OR ≥3500		5.3	6.1	6.1	6.1	6.1	6.1	6.1	6.1
• OR ≥2000		10.5	11.4	11.4	11.4	11.4	11.4	11.4	11.4
• OR ≥1000		16.7	18.4	19.3	19.3	19.3	19.3	19.3	19.3
• OR ≥600		20.2	21.9	22.8	22.8	22.8	22.8	22.8	22.8
• OR ≥300		20.2	21.9	22.8	22.8	22.8	22.8	22.8	22.8
• OR ≥150		20.2	21.9	22.8	22.8	22.8	22.8	22.8	22.8
• OR ≥ 0		20.2	21.9	22.8	22.8	22.8	22.8	22.8	22.8
TOTAL		23	25	26	26	26	26	26	26

TOTAL NUMBER OF OBS: 114

PCT FREQ NH <5/8: 77.2

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
9.7	19.7	24.6	16.4	8.2	7.4	4.9	5.7	7.4	.0	122



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PERIOD: (PRIMARY) 1912-1972  
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.3
	TOT %	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.3
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3
	NO PCP	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.3
	TOT %	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.6
5<10	PCP	.5	.5	.3	.6	.6	.5	.6	.0	.0	.3	3.9	
	NO PCP	.2	1.1	4.2	18.9	7.6	2.9	.5	2.1	.0	.9	38.3	
	TOT %	.6	1.5	4.5	19.7	8.2	3.3	1.1	2.1	.0	1.2	42.2	
10+	PCP	.0	.0	.3	.0	.2	.0	.0	.0	.0	.0	.6	
	NO PCP	.6	1.1	5.5	24.2	17.5	3.4	.9	.9	.0	1.8	56.3	
	TOT %	.6	1.1	5.8	24.2	17.7	4.0	.9	.9	.0	1.8	56.9	
TOT OBS													332
TOT PCT		1.2	2.6	10.3	44.4	25.9	7.3	2.3	3.0	.0	3.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.0	.1	.1	.2	.0	.2	.0	.0	.0	.0	.5	
	11-21	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.1	.2	.0	.2	.2	.0	.0	.2	.8	
5<10	0-3	.3	.3	.8	.6	1.3	.1	.2	.3	.0	.7	4.5	
	4-10	.1	.5	1.6	6.6	2.9	1.9	.3	.8	.0	.0	14.7	
	11-21	.0	.0	.1	4.0	.7	.2	.1	.0	.0	.0	5.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.3	.8	2.5	11.1	4.8	2.2	.6	1.2	.0	.7	24.2	
10+	0-3	.6	.6	1.4	3.1	3.4	.8	.2	.7	.0	4.5	15.2	
	4-10	.3	.6	5.8	22.5	15.0	4.6	1.3	.4	.0	.0	50.6	
	11-21	.0	.0	.8	3.8	3.1	.6	.2	.0	.0	.0	8.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.9	1.2	8.1	29.4	21.5	6.0	1.7	1.1	.0	4.5	74.3	
TOT OBS													599
TOT PCT		1.3	2.1	10.6	41.1	26.6	8.3	2.4	2.3	.0	5.3	100.0	

PERIOD: (PRIMARY) 1912-1972  
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	.0	8.3	.0	.0	.0	.0	.0	8.3	91.7	24
06009	.0	.0	.0	6.5	9.7	16.1	.0	.0	.0	.0	32.3	67.7	31
12015	.0	.0	.0	2.8	5.6	.0	5.6	.0	.0	2.8	16.7	83.3	36
18021	.0	.0	.0	3.8	7.7	3.8	7.7	3.8	.0	3.8	30.8	69.2	26
TOT	0	0	0	4	9	6	4	1	0	2	26	91	117
PCT	.0	.0	.0	3.4	7.7	5.1	3.4	.9	.0	1.7	22.2	77.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	1.0	.0	.0	.0	25.2	73.8	103
06009	.0	.0	.5	2.0	27.3	70.2	198
12015	.8	.0	.0	.0	22.5	76.7	129
18021	.0	.5	.0	.5	25.1	73.8	187
TOT	2	1	1	5	156	452	617
PCT	.3	.2	.2	.8	25.3	73.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	.0	8.3	91.7	24
06009	.0	.0	10.0	23.3	66.7	30
12015	.0	.0	2.9	14.3	82.9	35
18021	.0	.0	4.0	28.0	68.0	25
TOT	0	0	5	21	88	114
PCT	.0	.0	4.4	18.4	77.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.8	.8	.0	.0	4	1.5
85/89	.0	.0	.0	.0	1.9	11.6	5.4	.8	51	19.7
80/84	.0	.0	.0	.0	1.5	23.6	39.0	9.7	191	73.7
75/79	.0	.0	.0	.0	.0	.4	2.7	1.9	13	5.0
TOTAL	0	0	0	0	11	94	122	32	259	100.0
PCT	.0	.0	.0	.0	4.2	36.3	47.1	12.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90	.0	.0	.4	.8	.0	.4	.0	.0	.0	.0
85	.0	.0	2.0	7.8	5.6	2.7	.4	.8	.0	.4
80	.4	2.3	8.6	36.8	17.2	3.3	.6	2.5	.0	1.9
75	.4	.0	.2	1.0	1.2	.4	1.2	.4	.0	.4
8	.8	2.3	11.2	46.3	23.9	6.8	2.3	3.7	.0	2.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	89	88	86	82	79	77	76	82.4	148
06009	95	91	89	84	79	77	75	83.9	344
12015	88	87	86	83	80	79	79	83.0	179
18021	88	85	84	82	79	77	76	82.2	296
TOT	95	90	87	83	79	77	75	82.0	967

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	2.1	23.4	59.6	14.9	83	47		
06009	.0	.0	10.2	40.9	37.5	11.4	79	88		
12015	.0	.0	1.6	44.3	44.3	9.8	81	61		
18021	.0	.0	.0	32.9	49.4	17.7	83	79		
TOT	0	0	11	100	127	37	81	275		

PERIOD: (PRIMARY) 1912-1972  
(OVER-ALL) 1862-1972

JUNE

TABLE 17

AREA 0005 BANGKA ISLAND NORTHWEST  
.05 105.0E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	# FOG	% FOG
9/10	.0	.0	.7	.0	.0	2	.0	.7
7/8	.0	.0	.3	1.0	1.0	7	.0	2.4
6	.0	.3	1.0	.3	.3	6	.0	2.0
5	.0	.0	.7	.7	.3	5	.0	1.7
4	.0	.3	.7	1.4	.0	7	.0	2.4
3	.0	.0	.0	2.4	.0	7	.3	2.0
2	.0	.3	4.1	2.7	.0	24	.0	8.1
1	.0	.0	5.4	2.7	.0	22	1.7	6.4
0	.0	.0	13.9	5.8	.0	58	.3	19.3
-1	.0	1.0	11.5	1.4	.0	41	.7	13.2
-2	.0	.0	2.4	14.6	1.0	53	1.0	16.9
-3	.0	.7	5.1	.7	.0	19	.7	5.8
-4	.0	.0	2.4	3.7	.3	19	.3	6.1
-5	.0	1.7	3.4	.0	.0	15	.0	5.1
-6	.0	.3	.7	.0	.0	3	.0	1.0
-7/-8	.0	1.0	1.0	.0	.0	6	.0	2.0
-9/-10	.3	.0	.0	.0	.0	1	.0	.3
TOTAL	1		197		5		13	282
PCT	.3	10.5	66.8	20.7	1.7	100.0	4.4	95.6

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	1.9
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	1.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.9	.0	.0	.0	.0	1.9	.0	6.3	.0	.0	.0	.0	6.3
1-2	.0	1.9	6.7	.0	.0	.0	8.7	3.4	16.3	7.2	.0	.0	.0	27.4
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.2	.0	.0	.0	8.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	1.9	2.4	.0	.0	.0	4.3
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.8	6.7	.0	.0	.0	10.6	3.8	24.3	17.8	.0	.0	.0	46.2

PERIOD: (OVER-ALL) 1963-1972

JUNE

AREA 0005 BANGKA ISLAND NORTHWEST  
.65 104.0E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.4	.0	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	12.0	1.4	.0	.0	.0	13.5	.0	2.4	.0	.0	.0	.0	2.4	.0
3-4	.0	.0	6.7	.0	.0	.0	6.7	.0	.0	2.4	.0	.0	.0	2.4	.0
5-6	.0	.0	1.4	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	1.9	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	13.5	11.5	.0	.0	.0	25.0	.0	2.4	2.4	.0	.0	.0	4.8	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.9	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.9	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	1.9	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.8	1.9	.0	.0	.0	5.8	.0	.0	.0	.0	.0	.0	.0	94.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT PCT
<1	5.8	11.5	.0	.0	.0	.0	17.3	52
1-2	3.8	36.5	15.4	.0	.0	.0	55.8	
3-4	.0	.0	17.3	.0	.0	.0	17.3	
5-6	.0	1.9	3.8	.0	.0	.0	5.8	
7	.0	.0	3.8	.0	.0	.0	3.8	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	9.6	50.0	40.4	.0	.0	.0	100.0	

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	25-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	14.6	37.0	18.5	2.5	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	60	2
6-7	1.2	1.2	1.2	2.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
10-11	.0	.0	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	8
12-13	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	3
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDEX	11.1	3.7	2.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14	1
TOTAL	22	34	19	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	81	2
PCT	27.2	42.0	23.5	4.9	1.2	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1910-1972  
(OVER-ALL) 1857-1972

JULY

AREA 0005 BANGKA ISLAND NORTHWEST  
.05 105.1E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	42.1	.0	.0	.0 57.9
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	15.4	7.7	.0	.0	.0 76.9
E	1.8	5.3	3.5	.0	.0	.0	.0	10.6	.0	5.3	12.4	.0	.0	.0 73.5
SE	1.8	2.7	.0	.0	.0	.0	.0	4.5	1.5	5.8	2.0	.0	.0	.0 86.5
S	2.2	1.9	.0	.0	.0	.0	.0	4.1	1.0	3.5	3.8	.0	1.3	.0 86.3
SW	6.5	.0	.0	.0	.0	.0	.0	6.5	.0	6.5	6.5	.0	.0	.0 80.6
W	22.2	.0	.0	.0	.0	.0	.0	22.2	.0	5.6	11.1	.0	.0	.0 61.1
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	26.1	.0	.0	.0	.0 73.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0 .0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	33.3	.0	.0	.0	.0 66.7
TOT PCT	2.6	2.3	.3	.0	.0	.0	.0	5.3	1.0	6.3	4.6	.0	.3	.0 82.9
TOT OBS	304													

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
0000	5.7	2.9	.0	.0	.0	.0	.0	8.6	1.4	.0	2.9	.0	.0	.0 87.1
0600	2.2	6.5	.0	.0	.0	.0	.0	8.7	1.1	1.1	8.7	.0	.0	.0 81.5
1200	1.5	.0	.0	.0	.0	.0	.0	1.5	1.5	4.5	6.1	.0	.0	.0 86.4
1800	1.1	1.1	1.1	.0	.0	.0	.0	3.4	1.1	19.1	3.4	.0	1.1	.0 71.9
TOT PCT	2.5	2.8	.3	.0	.0	.0	.0	5.7	1.3	6.6	5.4	.0	.3	.0 81.1
TOT OBS	317													

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.4	.8	.2	.0	.0	.0		1.3	6.0		.0	.0	1.0	2.1	2.5	.0	1.8	.8
NE	.5	1.9	.1	.0	.0	.0		2.4	5.8		1.1	.0	1.3	3.4	3.1	.0	4.3	1.9
E	1.7	10.2	1.1	.0	.0	.0		13.0	6.5		9.9	6.7	3.8	8.9	17.5	.5	19.7	13.5
SE	2.5	29.8	11.5	.2	.0	.0		44.1	8.8		49.3	48.3	42.9	44.9	49.1	37.5	41.9	42.7
S	2.0	17.3	5.1	.1	.1	.0		24.6	8.4		26.4	25.0	29.7	27.5	21.9	31.3	18.4	23.3
SW	.8	4.2	.8	.3	.1	.0		6.2	4.8		3.2	13.3	8.6	3.8	3.3	12.5	5.4	8.7
W	.2	1.4	.8	.1	.1	.0		2.5	10.1		3.9	.0	2.4	1.7	1.3	6.3	2.6	3.5
NW	.7	1.3	.2	.0	.0	.0		2.2	5.8		2.1	.0	1.6	2.5	1.6	.0	3.8	1.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.8							3.8	.0		4.2	6.7	4.2	5.1	3.8	.0	2.0	3.8
TOT OBS	12.4	613	181	6	2	0		916	7.9		142	15	191	118	160	8	192	130
TOT PCT	12.4	46.9	19.8	.7	.2	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	03	09	15
N	.9	.5	.0	.0	.0			1.3	6.0		.0	1.5	2.4	1.3
NE	1.6	.8	.0	.0	.0			2.4	5.8		1.0	2.1	3.0	3.2
E	7.7	5.2	.1	.0	.0			13.0	6.5		9.6	6.8	17.3	16.8
SE	14.7	28.4	1.6	.0	.0			44.1	8.8		49.2	42.7	42.9	42.3
S	9.1	14.4	1.0	.0	.1			24.6	8.4		26.3	28.6	22.3	20.7
SW	2.4	3.3	.2	.2	.1			6.2	4.8		4.1	6.8	3.7	6.9
W	1.3	.6	.4	.1	.0			2.5	10.1		3.3	2.1	1.3	3.0
NW	1.4	.7	.1	.0	.0			2.2	5.8		1.9	1.7	1.3	2.9
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	.8							3.8	.0		4.2	6.7	3.6	2.8
TOT OBS	39.7	49.4	32	2	1			916	7.9		137	109	168	282
TOT PCT	42.2	53.9	3.5	.2	.1			100.0			100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	4.5	8.3	17.5	19.1	.6	.0	.0	7.9	100.0	157
06009	4.5	7.4	61.2	25.2	1.3	.3	.0	8.4	100.0	309
12015	3.6	8.9	68.5	18.5	.0	.6	.0	7.9	100.0	165
18021	2.8	9.9	72.0	14.9	.4	.0	.0	7.4	100.0	282
TOT	35	79	613	181	6	2	0	7.9		916
PCT	3.8	8.6	66.9	19.8	.7	.2	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL C85	MEAN CLOUD COVER
N	.9	.0	.7	.0		3.5
NE	.9	.0	.0	.0		2.0
E	3.5	1.5	2.4	.9		3.9
SE	17.6	8.9	19.3	5.2		4.3
S	6.7	3.5	12.0	6.7		5.1
SW	.0	.0	.2	3.7		7.0
W	.0	1.3	.0	1.7		6.2
NW	.9	.4	.2	.0		3.2
VAR	.0	.0	.0	.0		.0
CALM	.0	.9	.0	.0		4.0
TOT OBS	35	19	40	21	115	4.7
TOT PCT	30.4	16.5	34.8	18.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL
149	299	599	999	1999	3499	4999	6499	7999			OBS
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	
.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	7.4	
.0	.0	.0	.9	.0	4.6	2.2	.9	.0	.0	42.4	
.0	.0	.0	.0	4.1	1.3	1.7	.0	.0	.0	21.1	
.0	.0	.0	.0	1.7	.0	.0	.0	.0	.0	2.2	
.0	.0	.9	.0	.9	.0	.0	.0	.0	.0	1.3	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	
.0	.0	1	2	13	4	3	0	0	1	91	115
.0	.0	.9	1.7	11.3	3.5	2.6	.0	.0	.9	79.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NH) = OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.9	.9	.9	.9	.9	.9	.9	.9
= OR >5000	.9	.9	.9	.9	.9	.9	.9	.9
= OR >3500	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
= OR >2000	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
= OR >1000	15.4	17.1	17.9	17.9	17.9	17.9	17.9	17.9
= OR >600	16.2	19.7	20.5	20.5	20.5	20.5	20.5	20.5
= OR >300	16.2	19.7	21.4	21.4	21.4	21.4	21.4	21.4
= OR >150	16.2	19.7	21.4	21.4	21.4	21.4	21.4	21.4
= OR >0	16.2	19.7	21.4	21.4	21.4	21.4	21.4	21.4
TOTAL	19	23	25	25	25	25	25	25

TOTAL NUMBER OF OBS: 117

PCT FREQ NH <5/8: 78.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
8.1	21.0	24.2	12.1	12.9	8.1	5.6	2.4	5.6	124

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSEY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.2	.2	.3	.5	.2	.3	.0	.0	.0	.0	1.7
	TOT %	.0	.2	.2	.3	.5	.2	.3	.0	.0	.0	.0	1.7
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.2	.2	.0	.0	.3	.0	.0	.0	.0	.0	.0	.7
	TOT %	.2	.2	.0	.0	.3	.0	.0	.0	.0	.0	.0	.7
2<5	PCP	.0	.0	.0	.3	.3	.0	.3	.0	.0	.0	.0	1.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.3	.3	.0	.3	.0	.0	.0	.0	1.0
5<10	PCP	.0	.0	1.0	1.2	.5	.0	.0	.0	.0	.0	.0	2.6
	NO PCP	.8	.7	3.6	19.8	8.6	.8	.7	.0	.0	1.3	36.3	36.3
	TOT %	.8	.7	4.6	21.0	9.1	.8	.7	.0	.0	1.3	38.9	38.9
10+	PCP	.0	.0	.0	.7	.2	.3	.3	.0	.0	.0	.0	1.7
	NO PCP	.6	1.2	4.4	26.9	15.4	3.8	1.3	1.9	.0	.7	56.1	56.1
	TOT %	.6	1.2	4.4	27.6	15.7	4.1	1.7	1.9	.0	.7	57.8	57.8
TOT OBS													303
TOT PCT		1.6	2.1	9.2	49.3	25.9	5.1	3.0	1.9	.0	2.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSEY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.1	.1	.0	.3	.1	.2	.0	.0	.0	.0	.7
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.1	.1	.2	.3	.1	.2	.0	.0	.0	.0	.9
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.1	.1	.2	.0	.2	.0	.0	.0	.0	.0	.0	.6
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.1	.2	.0	.2	.0	.0	.0	.0	.0	.0	.6
2<5	0-3	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2
	4-10	.0	.0	.0	.4	.0	.0	.2	.0	.0	.0	.0	.6
	11-21	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.4
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.6	.2	.0	.4	.0	.0	.0	.0	1.1
5<10	0-3	.2	.2	.5	.6	.5	.2	.0	.0	.0	.7	.0	2.8
	4-10	.3	.2	2.2	7.2	2.4	.3	.4	.0	.0	.0	.0	12.9
	11-21	.0	.0	.1	4.4	2.4	.0	.0	.0	.0	.0	.0	6.9
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.5	.4	2.7	12.2	5.3	.5	.4	.0	.0	.7	.0	22.7
10+	0-3	.2	.0	.7	1.7	1.8	.7	.1	.3	.0	2.1	.0	7.5
	4-10	.2	1.3	6.8	25.7	15.3	3.0	1.0	1.1	.0	.0	.0	54.3
	11-21	.7	.0	1.0	7.6	3.2	.1	.2	.0	.0	.0	.0	12.2
	22+	.7	.0	.0	.2	.1	.0	.0	.0	.0	.0	.0	.4
	TOT %	1.8	1.3	8.5	35.3	20.5	3.8	1.3	1.4	.0	2.1	.0	74.3
TOT OBS													134
TOT PCT		1.0	1.9	11.5	48.4	26.5	4.4	2.2	1.4	.0	2.8	100.0	

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.05 105.1E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 209	200 309	300 499	400 1999	1000 3499	2000 4999	3000 6499	4000 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	3.2	19.4	3.2	3.2	.0	.0	.0	29.0	71.0	31
06009	.0	.0	.0	.0	12.3	.0	.0	.0	.0	4.2	16.7	83.3	24
12015	.0	.0	2.9	.0	8.8	2.9	2.9	.0	.0	.0	17.6	82.4	34
18021	.0	.0	.0	6.1	3.0	6.1	3.0	.0	.0	.0	18.2	81.8	33
TOT	0	0	1	3	13	4	3	0	0	1	25	97	122
PCT	.0	.0	.8	2.5	10.7	3.3	2.5	.0	.0	.8	20.5	79.5	100.0

TABLE 11

PERCENT FREQUENCY VSRY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<3	3<10	10+	TOTAL OBS
00003	2.0	1.0	.0	2.0	19.6	75.5	102
06009	.0	2.4	.0	1.2	27.5	68.9	107
12015	.0	1.9	.9	1.9	21.3	74.1	108
18021	.0	.0	1.2	.0	24.1	74.7	170
TOT	2	7	3	6	130	399	547
PCT	.4	1.3	.5	1.1	23.8	72.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSRY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<300 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	3.3	26.7	70.0	30
06009	.0	.0	4.3	13.0	82.6	23
12015	.0	3.1	3.1	15.6	81.3	32
18021	.0	.0	6.3	12.5	81.3	32
TOT	0	1	5	20	92	117
PCT	.0	.9	4.3	17.1	78.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.4	.0	.0	.0	1	.4
85/89	.0	.0	.0	.0	1.8	9.0	2.7	.0	30	13.5
80/84	.0	.0	.0	.0	.9	26.9	47.1	5.8	180	80.7
75/79	.0	.0	.0	.0	.0	.4	1.8	3.1	12	5.4
TOTAL	0	0	0	0	7	81	115	20	223	100.0
PCT	.0	.0	.0	.0	3.1	36.3	51.6	9.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0
85/89	.4	.4	1.3	8.6	2.1	.0	.4	.0	.0	.0
80/84	1.7	2.3	7.3	40.5	20.2	3.6	2.0	.8	.0	2.2
75/79	.0	.0	.3	2.1	1.6	.4	.4	.4	.0	.0
TOTAL	2.1	2.9	9.0	51.7	23.9	4.0	2.9	1.2	.0	2.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	87	86	82	78	75	73	81.7	152
06009	93	90	88	84	79	77	75	83.7	300
12015	88	85	83	82	79	78	75	82.3	169
18021	85	84	84	82	79	76	76	81.8	281
TOT	93	88	86	82	79	76	73	82.5	902

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	28.5	53.1	20.4	83	49
06009	.0	.0	11.1	47.6	36.5	4.8	77	63
12015	.0	.0	.0	42.0	52.0	6.0	80	50
18021	.0	.0	.0	27.4	63.0	9.6	82	73
TOT	0	0	7	84	121	23	81	235



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TABLE 17

AREA 0005 BANGKA ISLAND NORTHWEST  
.65 105.1EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
7-8	.0	.0	.0	.0	.4	1	.0	.4
4	.0	.0	.0	2.1	.4	6	.0	2.5
3	.0	.0	.0	.8	.0	2	.0	.8
2	.4	.0	2.9	2.9	.8	17	.4	6.7
1	.0	.0	6.3	3.3	.0	23	1.3	8.4
0	.0	.0	17.6	5.0	.0	54	1.3	21.2
-1	.0	.0	18.4	1.3	.0	47	2.1	17.6
-2	.0	.8	13.8	.0	.0	35	1.3	13.4
-3	.0	3.8	5.4	.0	.0	22	.4	8.8
-4	.0	3.8	4.2	.0	.0	19	.0	7.9
-5	.0	1.3	1.3	.0	.0	6	.0	2.5
-6	.0	.5	.3	.7	.0	4	.0	1.7
-7/-8	.0	.4	.4	.0	.0	2	.0	.8
-9/-10	.0	.4	.0	.0	.0	1	.0	.4
TOTAL	1	27	170	37	4	239	16	223
PCT	.4	11.3	71.1	15.5	1.7	100.0	6.7	93.3

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	1.9
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	1.9

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	1.4	.0	.0	.0	.0	1.4	.0	.5	.0	.0	.0	.0	.5
1-2	.0	3.8	.0	.0	.0	.0	3.8	.0	19.2	6.3	.0	.0	.0	25.5
3-4	.0	.0	1.4	.0	.0	.0	1.4	.0	7.7	13.9	.0	.0	.0	21.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.7	.5	.0	.0	8.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.2	1.4	.0	.0	.0	6.7	.0	27.4	28.4	.5	.0	.0	56.3

PERIOD: (OVER-ALL) 1963-1972

JULY

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.65 105.1E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.9	.0	.0	.0	.0	.0	1.9	.0	5.8	.0	.0	.0	.0	5.8
1-2	.0	5.8	1.4	.0	.0	.0	7.2	.0	1.9	.0	.0	.0	.0	1.9
3-4	.0	1.9	1.9	.0	.0	.0	3.8	.0	1.9	.0	.0	.0	.0	1.9
5-6	.0	1.9	5.8	1.4	.0	.0	9.1	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	1.4	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.9	9.6	10.6	1.4	.0	.0	23.6	.0	9.6	.0	.0	.0	.0	9.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.9	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.9	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	3.8	7.5	.0	.0	.0	.0	11.3	083
1-2	.0	32.1	7.5	.0	.0	.0	39.6	
3-4	.0	13.2	17.0	.0	.0	.0	30.2	
5-6	.0	1.9	13.2	1.9	.0	.0	17.0	
7	.0	.0	1.9	.0	.0	.0	1.9	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.8	54.7	39.6	1.9	.0	.0	100.0	53

PERIOD: (OVER-ALL) 1963-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	5.9	36.3	18.8	8.2	2.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	61	3
6-7	.0	1.2	5.9	3.5	1.2	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	4
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
INDEX	11.8	1.2	2.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13
TOTAL	15	33	23	10	3	1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	85
PCT	17.6	38.8	27.1	11.8	3.5	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1912-1972  
(OVER-ALL) 1858-1972

AUGUST

AREA 0005 BANGKA ISLAND NORTHWEST  
.75 105.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WJ PCPN	FGG WD PCPN PAST HR	SNOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25.0	.0	75.0
NE	.0	5.4	.0	.0	.0	.0	.0	5.4	.0	.0	10.8	.0	21.6	.0	62.2
E	2.0	1.4	.0	.0	.0	.0	.0	3.4	.0	.0	.0	.0	8.1	.0	88.5
SE	1.6	2.1	.0	.0	.0	.0	.0	3.6	.0	.7	2.8	.0	3.8	.0	89.8
S	.0	3.6	1.8	.0	.0	.0	.0	5.4	1.8	.0	3.4	.0	.9	1.8	84.8
SW	.0	.0	.0	.0	.0	.0	.0	.0	9.8	.0	.0	.0	.0	.0	90.2
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	23.5	.0	76.5
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	11.1	.0	.0	.0	.0	.0	.0	11.1	.0	.0	.0	.0	.0	.0	88.9
TOT PCT	1.4	2.2	.4	.0	.0	.0	.0	4.0	.7	.4	2.9	.0	4.7	.4	87.3
TOT OBS:	276														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GHT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WJ PCPN	FGG WD PCPN PAST HR	SNOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	3.1	4.7	.0	.0	.0	.0	.0	7.8	1.6	1.6	3.1	.0	.0	1.6	85.9
06009	.0	2.4	.0	.0	.0	.0	.0	2.4	.0	.0	2.4	.0	7.1	.0	88.2
12015	3.1	3.1	.0	.0	.0	.0	.0	6.3	.0	.0	4.7	.0	3.1	.0	85.9
18021	1.3	.0	1.3	.0	.0	.0	.0	2.6	1.3	1.3	2.6	.0	7.8	.0	85.7
TOT PCT	1.7	2.4	.3	.0	.0	.0	.0	4.5	.7	.7	3.1	.0	4.8	.3	86.6
TOT OBS:	290														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FRFQ	MEAN SPD	HOUR (GHT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.2	.5	.0	.0	.0	.0		.7	5.9	.0	.0	.0	.0	1.5	.0	2.0	.8	
NE	.5	2.2	.2	.0	.0	.0		2.9	6.5	1.4	6.3	1.6	1.5	4.5	3.3	5.7	2.5	
E	1.3	10.4	2.5	.0	.0	.0		14.2	8.1	9.0	18.8	9.7	13.3	17.5	16.7	20.3	15.6	
SE	2.4	34.4	12.6	.1	.0	.0		49.5	9.0	59.5	31.3	44.4	46.6	47.4	56.7	45.5	5.7	
S	1.7	13.7	5.6	.1	.0	.0		21.0	8.5	24.6	25.0	24.9	23.1	16.1	10.0	17.2	21.3	
SW	.8	3.0	.9	.1	.0	.0		4.7	7.8	5.5	18.8	7.0	6.1	3.6	8.3	2.3	2.0	
W	.0	1.8	.3	.1	.0	.0		2.1	7.9	2.8	.0	3.2	3.4	1.5	5.0	.3	1.2	
NW	.1	.6	.3	.1	.0	.0		1.1	10.3	.4	.0	1.1	2.3	1.2	.0	2.0	.0	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	3.6							3.6	.0	.7	.0	4.2	3.8	6.6	.0	4.7	.8	
TOT OBS	97	616	207	4	0	0	924		8.3	141	8	190	132	166	15	150	122	
TOT PCT	10.5	66.7	22.4	.4	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FRFQ	MEAN SPD	HOUR (GHT)			
	0-6	7-16	17-27	28-40	41+				00	03	09	18
N	.4	.3	.0	.0	.0		.7	5.9	.0	.0	1.4	1.5
NE	1.7	1.2	.0	.0	.0		2.9	6.5	1.7	1.6	4.4	4.2
E	4.7	9.2	.2	.0	.0		14.2	8.1	9.6	11.2	17.4	18.2
SE	14.2	32.6	2.7	.0	.0		49.5	9.0	54.2	47.7	48.2	50.1
S	8.3	11.3	1.0	.0	.0		21.0	8.5	24.7	24.1	15.6	19.0
SW	2.1	2.5	.2	.0	.0		4.7	7.8	6.2	6.6	4.0	2.2
W	1.2	.8	.2	.0	.0		2.1	7.9	4.7	3.3	1.8	.7
NW	.6	.2	.3	.0	.0		1.1	10.3	.3	1.6	1.1	1.1
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.6						3.6	.0	.7	4.0	6.1	2.9
TOT OBS	339	542	43	0	0	924		8.3	149	322	181	272
TOT PCT	36.7	58.7	4.7	.0	.0		100.0		100.0	100.0	100.0	100.0

AREA 0005 BANGKA ISLAND NORTHWEST  
.75 105.0E

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			40+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	.7	8.1	61.1	30.2	.0	.0	.0	8.8	100.0	149
06009	4.0	6.8	66.3	22.0	.0	.0	.0	8.3	100.0	322
12015	6.1	5.0	68.5	10.3	.0	.0	.0	7.9	100.0	181
18021	2.9	7.7	68.0	24.0	.7	.0	.0	8.2	100.0	270
TOT	33	6.4	61.6	267	.4	.0	.0	8.3		924
PCT	3.6	6.9	66.7	22.4	.4	.0	.0	100.0		

WIND DIP	0-2	3-4	5-7	8 & OBSCD	TOTAL CBS	MEAN CLOUD COVER
N	.0	.0	.0	.0		.0
NE	.0	1.1	1.1	.0		5.0
E	2.0	4.3	2.9	2.0		4.7
SE	8.3	11.5	17.0	8.9		5.0
S	5.7	14.7	8.3	5.2		4.5
SW	.3	1.7	1.1	.0		4.5
W	.9	.0	.6	.0		4.0
NW	.0	.0	.0	.0		.0
V&R	.0	.0	.0	.0		.0
CALM	1.1	.0	.0	1.1		4.0
TOT CBS	16	29	27	15	87	4.7
TOT PCT	18.4	33.3	31.0	17.2	100.0	

[illegible]

CEILING (FEET)	VSBY (NM)							
	OR >10	OR >5	OR >2	OR >1	OR >1/2	OR >1/4	OR >50YD	OR >10
OR >6500	1.1	2.3	2.3	2.3	2.3	2.3	2.3	2.3
OR >5000	2.3	3.4	3.4	3.4	3.4	3.4	3.4	3.4
OR >3500	5.7	6.9	6.9	6.9	6.9	6.9	6.9	6.9
OR >2000	10.3	12.6	12.6	12.6	12.6	12.6	12.6	12.6
OR >1000	14.9	17.2	17.2	17.2	17.2	17.2	17.2	17.2
OR >600	18.4	20.7	20.7	20.7	20.7	20.7	20.7	20.7
OR >300	18.4	20.7	20.7	20.7	20.7	20.7	20.7	20.7
OR >150	18.4	20.7	20.7	20.7	20.7	20.7	20.7	20.7
OR >0	18.4	20.7	20.7	20.7	20.7	20.7	20.7	20.7
TOTAL	16	18	18	18	18	18	18	18

PCT FREQ NH <5/8: 79.3

0	1	2	3	4	5	6	7	8	085C0	TOTAL 085
6.2	18.6	20.6	14.4	19.6	7.2	4.1	1.0	8.2	.0	97

## AUGUST

PERIOD: (PRIMARY) 1912-1972  
(OVERALL) 1858-1972AREA 0005 BANGKA ISLAND NORTHWEST  
.75 105.0E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.4	.0	.4	.0	.0	.0	.0	.0	.0	.7	
	TOT %	.0	.4	.0	.4	.0	.0	.0	.0	.0	.0	.7	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.4	.7	.4	.5	.2	.0	.4	.0	.0	.0	2.5	
	TOT %	.4	.7	.4	.5	.2	.0	.4	.0	.0	.0	2.5	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5<10	PCP	.0	.2	.5	1.5	.7	.0	.0	.0	.0	.4	3.3	
	NO PCP	1.1	1.2	4.8	18.5	4.2	1.1	.4	.0	.0	2.2	33.3	
	TOT %	1.1	1.4	5.3	20.0	4.9	1.1	.4	.0	.0	2.5	36.6	
10+	PCP	.0	.0	.0	.4	.4	.0	.0	.0	.0	.0	.7	
	NO PCP	.0	.9	7.8	31.0	14.9	2.6	.8	.7	.0	.7	59.4	
	TOT %	.0	.9	7.8	31.3	15.2	2.6	.8	.7	.0	.7	60.1	
TOT OBS													276
TOT PCT													
		1.4	9.4	13.4	52.3	20.3	3.7	1.4	.7	.0	3.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.4	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.4	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.4	.2	.1	.1	.0	.2	.0	.0	.0	1.1	
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.4	.2	.3	.1	.0	.2	.0	.0	.0	1.3	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.2	.1	.3	.2	.0	.0	.0	.0	.7	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.3	.2	.3	.2	.0	.0	.0	.0	.9	
5<10	0-3	.4	.0	.6	.4	.0	.0	.0	.0	.0	1.3	2.6	
	4-10	.2	.7	1.8	7.9	1.5	.6	.2	.0	.0	.0	12.7	
	11-21	.0	.0	.5	3.3	1.4	.2	.0	.2	.0	.0	5.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.6	.7	2.9	11.4	2.9	.7	.2	.2	.0	1.3	20.9	
10+	0-3	.0	.3	.7	1.4	1.1	.6	.0	.0	.0	1.0	5.8	
	4-10	.4	.9	7.6	28.0	12.0	2.2	1.1	.5	.0	.0	52.7	
	11-21	.0	.0	1.8	10.2	4.9	.4	.1	.3	.0	.0	17.7	
	22+	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.4	
	TOT %	.4	1.2	10.1	39.6	18.2	3.2	1.2	.9	.0	1.9	76.5	
TOT OBS													537
TOT PCT													
		1.1	2.9	13.4	51.6	21.4	4.1	1.5	1.1	.0	3.2	100.0	

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PERIOD: (PRIMARY) 1912-1972  
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.75 105.0F

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 249	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	3.1	6.3	12.5	.0	3.1	.0	6.3	31.3	68.8	32
06009	.0	.0	.0	.0	.0	.0	5.0	.0	.0	.0	5.0	95.0	20
12015	.0	.0	.0	3.8	3.8	3.8	7.7	.0	.0	.0	19.2	80.8	26
18021	.0	.0	.0	5.9	5.9	.0	.0	.0	.0	.0	11.8	88.2	17
TOT	0	0	0	3	4	5	3	1	0	2	18	77	95
PCT	.0	.0	.0	3.2	4.2	5.3	3.2	1.1	.0	2.1	18.9	81.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	1.0	.0	2.0	21.4	75.5	98
06009	.0	.6	1.7	.6	19.4	77.7	175
12015	.0	.0	.9	.9	21.9	76.3	114
18021	.0	.6	2.4	.6	25.6	70.7	164
TOT	0	3	8	5	122	413	551
PCT	.0	.5	1.5	.9	22.1	75.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	3.3	30.0	46.7	30
06009	.0	.0	.0	5.6	94.4	18
12015	.0	.0	4.3	17.4	78.3	23
18021	.0	.0	6.3	6.3	87.5	16
TOT	0	0	3	15	69	87
PCT	.0	.0	3.4	17.2	79.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	1.9	10.0	5.0	.0	23	16.4
80/84	.0	.0	.0	.0	2.0	26.9	42.3	8.5	160	79.6
75/79	.0	.0	.0	.0	.0	.0	3.0	1.0	8	4.0
TOTAL	0	0	0	0	7	74	101	19	201	100.0
PCT	.0	.0	.0	.0	3.5	36.8	50.2	9.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.5	2.5	7.6	3.2	.6	.0	.0	.0	2.0
2.0	3.1	11.9	43.2	16.0	2.7	1.6	.0	.0	2.0
.0	.0	.5	2.0	1.0	.0	.0	.5	.0	.0
2.0	3.6	14.9	49.8	20.3	3.4	1.6	.5	.0	4.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	87	85	82	78	74	73	81.0	147
06009	92	89	88	83	79	77	75	83.6	311
12015	87	86	84	82	80	78	75	82.1	178
18021	85	84	83	82	79	77	76	81.5	273
TOT	92	88	86	82	79	77	73	82.3	909

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	24.0	60.0	16.0	84	30
06009	.0	.0	10.7	55.4	28.6	5.4	77	36
12015	.0	.0	2.2	45.7	45.7	6.5	80	46
18021	.0	.0	.0	19.0	68.3	12.7	84	63
TOT	0	0	7	76	110	22	81	215

PERIOD: (PRIMARY) 1912-1972  
(OVER-ALL) 1858-1972

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AREA 0003 BANGKA ISLAND NORTHWEST  
.75 105.0E

TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	77 80	81 84	85 88	89 92	TOT	% FOG	% FOG
6	.0	.0	.5	.0	1	.0	.5
5	.0	.5	.9	.4	4	.0	1.9
4	.5	.5	2.8	.0	8	.0	3.7
3	.0	1.4	3.7	.0	11	.0	5.1
2	.0	5.1	4.2	.0	20	.0	9.3
1	.0	4.7	.5	.0	11	.0	5.1
0	1.4	21.4	2.8	.0	55	.0	25.6
-1	1.4	18.1	.0	.0	42	.0	19.5
-2	3.3	13.0	.5	.0	36	.0	16.7
-3	.9	4.2	.0	.0	11	.0	5.1
-4	2.3	3.3	.5	.0	13	.0	6.0
-5	.5	.5	.0	.0	2	.0	.9
-7/-8	.5	.0	.0	.0	1	.0	.5
TOTAL	23	56	35	1	215	0	215
PCT	10.7	72.6	16.3	.4	100.0		100.0

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	.0	.0	.0	2.1
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.5	.0	.0	.0	2.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.1	.0	.0	.0	.0	2.1	.0	4.2	.0	.0	.0	.0	4.2
1-2	.0	5.7	.0	.0	.0	.0	5.7	4.7	23.0	6.3	.0	.0	.0	35.4
3-4	.0	3.1	.0	.0	.0	.0	3.1	.0	7.3	6.8	.0	.0	.0	14.1
5-6	.0	.0	3.6	.0	.0	.0	3.6	.0	.0	2.1	.0	.0	.0	2.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	10.9	3.6	.0	.0	.0	14.6	4.2	36.5	15.1	.0	.0	.0	55.7

AREA 0005 BANGKA ISLAND NORTHWEST  
.75 105.0F

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S															SW														
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT															
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
1-2	2.1	8.9	.0	.0	.0	.0	10.9	.0	2.1	.0	.0	.0	.0	2.1															
3-4	.0	2.1	5.2	.0	.0	.0	7.3	.0	.0	.5	.0	.0	.0	.5															
5-6	.0	.0	2.1	.0	.0	.0	2.1	.0	.0	.0	.0	.0	.0	.0															
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
TOT PCT	2.1	10.9	7.3	.0	.0	.0	20.3	.0	2.1	.5	.0	.0	.0	2.6															

W															NW															TOTAL PCT
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT																
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	.0	2.1																
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	.0	2.1	97.2															

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-35	36-47	48+	PCT	TOT
C1	2.1	6.3	.0	.0	.0	.0	8.3	085
1-2	.0	43.8	6.3	.0	.0	.0	56.3	
3-4	.0	12.5	12.5	2.1	.0	.0	27.1	
5-6	.0	.0	8.3	.0	.0	.0	8.3	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.3	62.5	27.1	2.1	.0	.0	100.0	68

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

[illegible]



SEPTEMBER

PERIOD: (PRIMARY) 1908-1972  
(OVER-ALL) 1854-1972

AREA 0005 BANGKA ISLAND NORTHWEST  
17S 105.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	PRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE MAZE	SPRAY BLWG UUST	NO SIG HEA
N	11.1	22.2	.0	.0	.0	.0	.0	93.3	.0	22.2	.0	.0	22.2	.0	22.2
NE	5.0	.0	.0	.0	.0	.0	.0	5.0	.0	10.0	.0	.0	5.0	.0	80.0
E	.0	.0	3.0	.0	.0	.0	.0	3.0	.0	.0	1.5	.0	1.5	.0	94.0
SE	3.6	.4	.0	.0	.0	.0	.0	4.0	.0	.4	2.8	.0	10.6	.0	82.3
S	2.8	2.8	.0	.0	.0	.0	.0	5.6	3.7	1.9	.0	.0	3.5	.0	86.3
SW	13.8	5.3	.0	.0	.0	.0	.0	21.1	15.8	2.6	.0	.0	.0	.0	60.3
W	14.8	.0	.0	.0	.0	.0	.0	14.8	7.4	7.4	.0	.0	.0	.0	71.8
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	28.6	.0	.0	.0	.0	71.4
TOT PCT	4.5	1.5	.4	.0	.0	.0	.0	6.2	2.2	2.6	1.5	.0	6.3	.0	91.8
TOT OBS	269														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	PRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE MAZE	SPRAY BLWG UUST	NO SIG HEA
0000Z	1.6	.0	.0	.0	.0	.0	.0	1.6	.0	1.6	.0	.0	7.0	.0	89.3
0600Z	2.8	1.3	.0	.0	.0	.0	.0	5.0	3.8	.0	1.3	.0	10.0	.0	80.0
1200Z	5.6	2.8	.0	.0	.0	.0	.0	8.3	2.8	4.2	2.8	.0	.0	.0	81.9
1800Z	5.7	1.4	1.4	.0	.0	.0	.0	8.6	1.4	8.6	1.4	.0	7.1	.0	75.7
TOT PCT	4.3	1.4	.4	.0	.0	.0	.0	6.1	2.2	3.6	1.4	.0	6.1	.0	81.4
TOT OBS	274														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18
N	.3	1.2	.1	.0	.0	.0		1.6	6.0	.4	.0	.9	2.5	1.7	.0	2.3	2.1
NE	.6	2.2	.1	.0	.0	.0		3.0	6.3	.4	.0	1.9	2.5	3.6	.0	5.3	1.3
E	1.5	10.0	1.9	.0	.0	.0		13.3	7.5	11.7	.0	8.3	16.3	13.6	23.0	16.1	14.3
SE	2.0	27.6	9.9	.2	.1	.0		40.2	8.5	44.9	60.0	41.3	38.6	36.3	50.0	38.7	29.9
S	2.6	18.1	9.9	.1	.0	.0		24.2	7.6	23.7	10.0	31.0	25.0	21.3	12.5	19.4	24.8
SW	1.1	5.3	1.1	.1	.0	.0		7.6	7.4	6.1	10.0	9.8	7.2	7.9	.0	7.0	6.3
W	1.1	2.0	.8	.1	.0	.0		4.0	7.3	3.8	10.0	4.0	3.0	6.6	.0	1.7	3.8
NW	.3	.6	.3	.0	.0	.0		1.2	7.4	2.3	10.0	.9	.4	1.5	.0	1.0	.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.9							4.9	.0	3.8	.0	1.9	4.2	5.5	12.5	3.6	4.7
TOT OBS	142	624	160	4	1	0		931	7.5	132	10	212	118	181	8	131	119
TOT PCT	15.3	67.0	17.2	.4	.1	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3a

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-15	17-27	28-40	41+						00	03	09	18
N	1.2	.3	.1	.0	.0			1.6	6.0	.4	1.5	1.6	2.4	
NE	1.6	1.4	.0	.0	.0			3.0	6.3	.4	3.2	2.1	3.6	2.3
E	6.1	6.8	.4	.0	.0			13.3	7.5	10.9	11.2	16.0	15.3	
SE	15.1	23.4	1.1	.1	.0			40.2	8.5	46.0	40.3	38.9	39.3	
S	10.3	13.7	.2	.0	.0			24.2	7.6	22.7	28.9	20.9	21.8	
SW	3.8	3.4	.3	.0	.0			7.6	7.4	6.3	8.9	7.5	6.7	
W	2.3	1.4	.2	.0	.0			4.0	7.3	4.2	3.6	6.3	2.6	
NW	.7	.4	.1	.0	.0			1.2	7.4	2.8	.8	1.5	.7	
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	
CALM	4.9							4.9	.0	3.3	2.7	5.8	7.8	
TOT OBS	429	478	23	1	0			931	7.5	142	350	189	270	
TOT PCT	46.1	51.3	2.5	.1	.0			100.0		100.0	100.0	100.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1908-1972  
(COVER-ALL) 1854-1972

AREA 0005 BANGKA ISLAND NORTHWEST  
.75 105.0E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (JPT)

WIND	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	3.5	11.3	66.9	18.3	.0	.0	.0	7.4	100.0	142
06009	2.7	10.3	65.8	20.3	.0	.0	.0	6.1	100.0	330
12015	5.8	11.1	67.2	15.9	.0	.0	.0	7.0	100.0	189
18021	7.8	9.3	68.5	13.7	.4	.4	.0	7.1	100.0	270
TOT	46	96	624	150	4	1	0	7.4		931
PCT	4.9	10.3	67.0	17.2	.4	.1	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL CLOUD OBS	MEAN CLOUD COVER
N	.0	.8	.0	.0		5.0
NE	.0	.0	1.6	1.6		7.0
E	1.4	2.2	3.0	2.6		5.5
SE	10.1	5.8	13.1	10.1		4.9
S	5.4	3.2	13.9	4.6		4.6
SW	.8	.0	1.4	5.2		7.1
W	.0	.4	3.2	2.6		6.7
NW	.0	.4	.0	1.4		6.8
VAR	.0	.0	.0	.0		.0
CALM	.8	.8	1.6	.8		4.8
TOT OBS	23	17	47	37	124	5.3
TOT PCT	18.5	13.7	37.9	29.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NM <5/8	TOTAL
142	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.8	
.0	.0	.0	.0	.8	.5	.0	.0	.0	.0	1.6	
.0	.0	.0	.8	.8	.0	.0	.0	.0	.0	6.3	
.8	.0	.0	3.4	3.4	1.8	.0	1.6	.0	.0	28.0	
.0	.0	.0	.6	4.2	.8	.0	.0	.0	.0	21.6	
.0	.0	.0	.8	2.0	2.4	.0	.0	.0	.0	2.2	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.6	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0	
1	0	0	8	14	9	0	2	0	0	88	124
.8	.0	.0	6.3	11.3	7.3	.0	1.6	.0	1.3	71.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	>10	>5	>2	VSBY (NM) >1	>1/2	>1/4	>50YD	>0
>OR 26500	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
>OR 25000	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
>OR 23500	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
>OR 22000	7.1	10.2	10.2	10.2	10.2	10.2	10.2	10.2
>OR 21000	13.4	19.7	21.3	21.3	21.3	21.3	21.3	21.3
>OR 2000	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 1900	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 1800	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 1700	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 1600	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 1500	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 1400	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 1300	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 1200	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 1100	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 1000	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 900	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 800	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 700	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 600	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 500	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 400	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 300	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 200	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 100	15.7	25.2	26.8	27.6	27.6	27.6	27.6	27.6
>OR 0	16.5	26.0	27.6	28.3	28.3	28.3	28.3	28.3
TOTAL	21	33	35	36	36	36	36	36

TOTAL NUMBER OF OBS: 127

PCT FREQ NM <5/8: 71.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OR MORE	TOTAL OBS
11.9	20.0	20.7	11.1	8.9	3.0	6.9	4.4	11.1	135

PERIOD: (PRIMARY) 1908-1972  
(OVER-ALL) 1854-1972

SEPTEMBER

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.75 105.0E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	ND PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	ND PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
PCP	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.4	
1<2	ND PCP	.4	.0	.0	3.0	.0	.0	.0	.0	.0	3.4	
TOT %	.4	.0	.4	3.0	.0	.0	.0	.0	.0	.0	3.7	
PCP	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.4	
2<5	ND PCP	.0	.0	.4	.0	.0	.0	.0	.0	.0	.4	
TOT %	.0	.0	.4	.4	.0	.0	.0	.0	.0	.0	.7	
PCP	.2	.2	.0	1.1	.4	1.8	.7	.0	.0	.0	4.1	
5<10	ND PCP	.0	2.4	5.0	16.3	5.1	1.7	.9	.2	.0	27.3	
TOT %	.2	2.4	5.0	17.4	5.5	3.2	1.7	.2	.0	.7	36.4	
PCP	.4	.0	.0	.4	.7	.0	.0	.0	.0	.0	1.5	
10+	ND PCP	.7	1.1	6.7	25.2	13.4	3.9	3.3	1.0	.0	57.2	
TOT %	1.1	1.1	6.7	25.6	14.1	3.9	3.3	1.0	.0	1.9	58.7	
TOT OBS												269
TOT PCT	1.7	3.7	12.5	46.2	20.0	7.1	9.0	1.2	.0	2.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
0-3		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
<1/2	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
0-3		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
0-3		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	4-10	.2	.0	.2	.4	.0	.0	.0	.0	.0	.0	.8	
	11-21	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	1.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %		.2	.0	.2	1.7	.0	.0	.0	.0	.0	.0	2.1	
0-3		.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
2<5	4-10	.0	.0	.2	.4	.0	.0	.0	.0	.0	.0	.9	
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT %		.0	.0	.2	.8	.0	.0	.0	.0	.0	.0	1.2	
0-3		.1	.3	.6	1.1	.5	.2	.2	.1	.0	.4	3.4	
5<10	4-10	.1	1.2	2.4	4.2	3.1	1.5	.9	.1	.0	.0	18.5	
	11-21	.0	.0	.4	2.2	.8	.4	.2	.0	.0	.0	4.0	
	22+	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
TOT %		.2	1.5	3.3	12.5	4.4	2.1	1.3	.2	.0	.4	20.0	
0-3		.1	.7	.8	1.9	1.6	1.0	1.2	.2	.0	4.3	11.9	
10+	4-10	.9	1.1	6.9	21.4	12.7	3.4	1.2	.8	.0	.0	48.4	
	11-21	.0	.0	1.2	4.8	2.4	.9	.6	.1	.0	.0	10.0	
	22+	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.4	
TOT %		1.0	1.8	6.9	28.3	17.1	5.1	2.9	1.1	.0	4.3	70.6	
TOT OBS													531
TOT PCT		1.4	3.3	12.6	43.2	21.9	7.2	4.4	1.3	.0	4.7	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1908-1972  
(OVERALL) 1854-1972

AREA 0005 BANGKA ISLAND NORTHWEST  
.75 105.0E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	3.4	3.4	6.9	.0	.0	.0	.0	13.8	86.2	29
06009	.0	.0	.0	3.4	24.1	6.9	.0	3.4	.0	6.7	44.8	55.2	29
12015	.0	.0	.0	7.0	14.0	4.7	.0	.0	.0	.0	25.6	74.4	43
18021	3.0	.0	.0	9.1	.0	9.1	.0	3.0	.0	.0	24.2	75.8	33
TOT	1	0	0	8	14	9	0	2	0	2	36	98	134
PCT	.7	.0	.0	6.0	10.4	6.7	.0	1.5	.0	1.5	26.9	73.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	4.2	1.0	19.8	75.0	96
06009	.0	.0	2.5	1.2	28.6	67.7	101
12015	.0	.0	.0	2.4	23.8	73.8	126
18021	.0	.0	2.5	.6	29.7	67.1	158
TOT	0	0	12	7	142	380	541
PCT	.0	.0	2.2	1.3	26.2	70.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	3.4	10.3	86.2	29
06009	.0	.0	7.4	40.7	51.9	27
12015	.0	.0	9.5	16.7	73.8	42
18021	3.4	3.4	13.8	13.8	72.4	29
TOT	1	1	11	23	91	127
PCT	.8	.8	3.7	19.7	71.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/94	.0	.0	.0	.0	.4	.0	.0	.0	1	.4
85/89	.0	.0	.0	.6	1.8	4.0	4.4	.4	24	10.6
80/84	.0	.0	.0	.4	1.8	31.9	38.5	8.4	183	81.0
75/79	.0	.0	.0	.0	.4	.0	3.5	3.1	18	7.1
70/74	.0	.0	.0	.0	.0	.0	.9	.0	2	.9
TOTAL	0	0	0	1	10	81	107	27	228	100.0
PCT	.0	.0	.0	.4	4.4	35.8	47.3	11.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

H	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.4	.0	.0	.0	.0	.0
.0	.2	.4	7.5	2.2	.2	.0	.0	.0	.0
1.3	3.5	11.7	37.5	15.9	4.2	3.2	.9	.0	2.7
.4	.4	.4	2.2	.9	1.3	1.3	.0	.0	.0
.0	.0	.0	.0	.9	.0	.0	.0	.0	.0
1.8	4.2	12.6	47.2	20.4	5.8	4.5	.9	.0	2.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL (OBS)
00003	89	88	84	82	77	77	76	81.5	144
06009	93	91	88	84	79	76	70	83.6	320
12015	86	85	84	82	78	76	74	81.8	186
18021	89	84	83	82	79	77	72	81.5	269
TOT	93	89	86	82	79	74	70	82.3	919

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	2.2	.0	33.3	51.1	13.2	52	45		
06009	.0	.0	9.0	42.3	41.8	6.0	79	87		
12015	.0	.0	3.3	36.7	46.7	13.3	82	60		
18021	.0	.0	3.1	26.6	56.3	14.1	63	64		
TOT	0	1	10	83	115	27	81	236		

SEPTEMBER

PERIOD: (PRIMARY) 1908-1972  
(OVER-ALL) 1954-1972

AREA 0005 BANGKA ISLAND NORTHWEST  
.75 105.0E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	59 72	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
9/10	.0	.0	.0	.0	.5		1	.0	.5
7/8	.0	.0	.0	.0	.5		1	.0	.5
6	.0	.0	.0	.0	.5		2	.0	1.0
5	.0	.0	.0	.0	.5		1	.0	.5
4	.0	.0	.0	1.0	1.4		5	.0	2.4
3	.0	.0	.0	.0	1.0		2	.0	1.0
2	.0	.0	.0	3.8	3.3		15	.0	7.2
1	.0	.0	.0	7.2	3.3		22	.0	10.5
0	.0	.0	2.4	17.7	1.0		44	.0	21.1
-1	.0	.5	1.0	18.2	.5		42	.0	20.1
-2	.0	.5	1.4	12.0	.0		29	.0	13.9
-3	.0	.0	1.4	6.7	.0		17	.5	7.7
-4	.0	.0	1.4	2.4	.0		8	.0	3.3
-5	.0	.0	5.3	1.0	.0		13	.0	6.2
-6	.0	.0	.5	.0	.0		1	.0	.5
-7/-8	.0	.0	1.4	.5	.0		4	.0	1.9
-11/-13	.5	.0	.0	.5	.0		2	.0	1.0
TOTAL	1		31		25		209	1	208
PCT	.5	1.0	14.8	70.8	12.0	1.0	100.0	.5	99.5

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	1.6	.0	.0	.0	.0	1.6
1-2	.0	.0	.0	.0	.0	.0	.0	.0	1.6	.0	.0	.0	.0	1.6
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	1.6	.0	.0	.0	.0	1.6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.6	.0	.0	.0	.0	1.6	.0	3.2	.0	.0	.0	.0	3.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	8.1	.0	.0	.0	.0	8.1
1-2	.0	4.4	.0	.0	.0	.0	4.4	1.6	19.4	2.0	.0	.0	.0	23.0
3-4	.0	1.6	.0	.0	.0	.0	1.6	.0	1.6	6.5	.0	.0	.0	8.1
5-6	.0	1.6	.0	.0	.0	.0	1.6	.0	.0	4.8	.0	.0	.0	4.8
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	7.7	.0	.0	.0	.0	7.7	1.6	29.0	13.3	.0	.0	.0	44.0

PERIOD: (OVER-ALL) 1963-1972

SEPTEMBER

AREA 0003 BANGKA ISLAND NORTHWEST  
.75 105.0E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.6	3.2	.0	.0	.0	.0	4.8	.0	.0	.0	.0	.0	.0	.0
1-2	.0	18.1	6.0	.0	.0	.0	24.2	1.6	.0	.0	.0	.0	.0	1.6
3-4	.0	3.2	1.6	.0	.0	.0	4.8	.0	.0	1.6	.0	.0	.0	1.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.6	24.6	7.7	.0	.0	.0	33.9	1.6	.0	1.6	.0	.0	.0	3.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	1.6	.0	.0	.0	.0	.0	1.6
1-2	.0	.0	1.6	.0	.0	.0	1.6	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	1.6	.0	.0	.0	1.6	.0	1.6	.0	.0	.0	.0	1.6	96.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	7.8	14.1	.0	.0	.0	.0	21.9	
1-2	3.1	42.2	9.4	.0	.0	.0	54.7	
3-4	.0	6.3	9.4	.0	.0	.0	15.6	
5-6	.0	3.1	4.7	.0	.0	.0	7.8	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	10.9	65.4	23.4	.0	.0	.0	100.0	64

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	17.0	32.1	15.1	6.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	75	2
6-7	.0	3.8	4.7	1.9	.9	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	4
8-9	.0	.9	.9	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	4
10-11	.0	.9	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	3
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	9.4	.9	.9	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	1
TOTAL	28	41	24	10	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	106	2
PCT	26.4	38.7	22.6	9.4	1.9	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

OCTOBER

PERIOD: (PRIMARY) 1908-1972  
(OVER-ALL) 1854-1972AREA 0005 BANGKA ISLAND NORTHWEST  
.05 105.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WNO DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	3.7	3.7	1.8	.0	.0	.0	.0	9.2	.0	6.4	.0	.0	11.0	.0	73.4
NE	7.4	17.3	.0	.0	.0	.0	.0	24.7	.0	1.2	.0	.0	.0	.0	74.1
E	4.2	4.2	.0	.0	.0	.0	.0	8.3	2.8	5.6	.0	.0	2.8	.0	80.6
SE	1.4	7.0	.0	.0	.0	.0	.0	8.5	.0	3.5	1.4	.0	7.0	.0	79.6
S	7.7	3.9	.0	.0	.0	.0	1.9	13.5	.0	8.7	1.9	.0	3.9	.0	77.8
SW	3.8	7.6	.0	.0	.0	.0	.0	11.4	4.8	1.0	3.8	.0	.0	.0	79.0
W	5.2	1.7	.0	.0	.0	.0	.0	7.0	2.6	6.1	.0	.0	.0	.0	84.3
NW	9.0	5.4	.0	.0	.0	.0	.0	23.4	.0	.0	.0	.0	.0	.0	76.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.3	.0	.0	.0	.0	.0	.0	5.3	5.3	15.8	.0	.0	15.8	.0	63.2
TOT PCT	4.9	5.5	1.0	.0	.0	.0	.3	11.7	1.3	5.2	1.0	.0	4.9	.0	77.6
TOT OBS:	308														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00Z03	4.3	8.6	1.4	.0	.0	.0	.0	14.3	.0	.0	1.4	.0	4.3	.0		80.0
06Z09	6.7	8.7	1.0	.0	.0	.0	1.0	17.3	1.9	7.7	.0	.0	5.8	.0		72.1
12Z15	5.0	1.3	1.3	.0	.0	.0	.0	7.5	1.3	6.3	1.3	.0	2.5	.0		82.5
18Z21	5.3	7.4	1.1	.0	.0	.0	.0	13.8	1.1	10.6	1.1	.0	4.3	.0		70.2
TOT PCT TOT OBS:	5.5 348	6.6	1.1	.0	.0	.0	.3	13.5	1.1	6.6	.9	.0	4.3	.0		75.6

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	2.0	1.8	.3	.0	.0	.0		5.2	4.9		2.9	18.6	5.1	5.7	7.7	22.2	3.6	3.6
NE	2.0	5.6	.5	.0	.0	.0		8.1	5.8		4.5	6.3	2.8	9.3	11.1	.0	14.0	8.8
E	7.6	7.7	.3	.0	.0	.0		10.6	5.5		10.1	.0	7.6	7.3	15.3	22.2	11.1	12.4
SE	3.7	14.1	2.1	.2	.0	.0		20.0	6.6		23.2	18.8	20.7	21.1	16.6	25.0	20.7	17.6
S	3.4	12.3	1.6	.1	.0	.0		17.3	6.4		17.6	25.0	18.8	19.1	14.0	30.6	14.2	19.6
SW	1.1	7.9	1.4	.1	.0	.0		10.4	7.1		15.6	18.8	11.7	9.8	9.2	.0	6.6	9.6
W	2.4	5.3	1.9	.3	.0	.0		9.4	7.2		9.4	12.5	14.0	8.5	7.1	.0	7.9	8.0
NW	2.0	4.3	.7	.1	.0	.0		7.1	6.5		8.7	.0	7.2	10.2	4.5	.0	6.6	7.6
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	11.8							11.8	.0		8.0	.0	12.1	8.9	14.5	.0	14.6	12.8
TOT OBS	291	566	79	6	0	0	942				138	6	215	123	173	9	151	125
TOT PCT	35.9	60.1	8.4	.4	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	4.1	1.1	.0	.0	.0		5.2	4.9	3.8	5.3	8.4	3.6		
NE	5.7	2.2	.2	.0	.0		8.1	5.8	4.6	5.2	10.6	12.0		
E	7.7	2.9	.0	.0	.0		10.6	5.5	9.6	7.5	15.7	11.7		
SE	11.9	7.7	.4	.0	.0		20.0	6.6	22.9	20.9	17.0	19.3		
S	10.5	6.7	.2	.0	.0		17.3	6.4	18.0	18.9	14.8	16.7		
SW	6.0	4.2	.2	.1	.0		10.4	7.1	15.8	11.0	8.8	8.0		
W	5.4	3.4	.4	.2	.0		9.4	7.2	9.6	12.0	6.7	8.0		
NW	4.1	2.8	.2	.0	.0		7.1	6.5	8.2	8.3	4.3	7.1		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	11.8						11.8	.0	7.5	10.9	13.7	13.8		
TOT OBS	632	292	15	2	0	942		5.6	146	338	182	276		
TOT PCT	67.2	31.0	1.6	.2	.0		100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1908-1972  
(OVER-ALL) 1854-1972

OCTOBER

AREA 0005 BANGKA ISLAND NORTHWEST  
.05 105.0E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	7.3	17.1	85.8	8.9	.7	.0	.0	.0	6.2	100.0	146
06009	10.9	19.8	57.7	10.7	1.2	.0	.0	.0	5.9	100.0	338
12015	13.7	18.7	63.7	3.8	.0	.0	.0	.0	5.0	100.0	182
18021	13.8	19.9	57.4	8.3	.4	.0	.0	.0	5.3	100.0	276
TOT	11.1	18.0	56.6	7.9	.6	.0	.0	.0	5.6		942
PCT	11.0	19.1	60.1	8.4	.6	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-8	TOTAL OBS	MEAN CLOUD COVER
N	.9	.0	.9	1.0	5.3	
NE	.9	1.1	.9	2.1	5.2	
E	3.7	3.4	1.6	5.3	4.9	
SE	2.8	2.8	8.7	8.9	5.8	
S	.9	1.8	5.5	6.0	6.2	
SW	.0	.9	4.6	3.4	6.6	
W	1.8	1.4	3.0	3.9	5.4	
NW	.0	2.3	3.0	2.8	5.9	
VAR	.0	.0	.0	.0	.0	
CALM	.9	4.6	5.5	.0	4.6	
TOT OBS	13	20	39	37	109	5.6
TOT PCT	11.9	18.3	35.8	33.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.5	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.2	
.0	.0	.0	3.4	.9	.0	.0	.0	.0	.0	9.6	
.0	.0	.0	2	2.8	3.9	.9	.0	.0	.0	15.4	
.0	.9	.0	.0	.9	.7	.9	.9	.0	.0	9.9	
.0	.0	.0	.9	3.0	.0	.0	.0	.0	.0	5.0	
.0	.0	.0	.9	4.1	.0	.0	.0	.0	.0	7.1	
.0	.0	.0	.0	1.1	.9	.9	.9	.0	.0	3.2	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.9	.0	.9	.0	.0	.0	.0	9.2	
0	1	0	6	15	8	3	2	0	1	71	109
.0	.9	.0	7.3	13.4	7.3	2.8	1.8	.0	.9	65.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)			VSBY (NH)			VSBY (NH)			VSBY (NH)		
	< OR >10	< OR >5	< OR >2	< OR >1	< OR >1/2	< OR >1/4	< OR >50YD	< OR >0				
< OR >6500	.9	.9	.9	.9	.9	.9	.9	.9				
< OR >5000	1.8	2.6	2.6	2.6	2.6	2.6	2.6	.6				
< OR >3500	3.5	5.3	5.3	5.3	5.3	5.3	5.3	5.3				
< OR >2000	10.5	12.3	12.3	12.3	12.3	12.3	12.3	12.3				
< OR >1000	18.4	24.6	25.4	27.2	27.2	27.2	27.2	27.2				
< OR >600	24.6	30.7	32.5	34.2	34.2	34.2	34.2	34.2				
< OR >300	24.6	30.7	32.5	34.2	34.2	34.2	34.2	34.2				
< OR >150	24.6	30.7	33.3	35.1	35.1	35.1	35.1	35.1				
< OR >0	24.6	30.7	33.3	35.1	35.1	35.1	35.1	35.1				
TOTAL	28	35	38	40	40	40	40	40				

TOTAL NUMBER OF OBS: 114

PCT FREQ NH <5/8: 64.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	9	TOTAL OBS
4.7	11.8	25.2	18.1	3.9	7.1	8.7	1.6	18.9	.0	127



## OCTOBER

PERIOD: (PRIMARY) 1908-1972  
(OVER-ALL) 1954-1972

AREA 0005 BANGKA ISLAND NORTHWEST  
.65 105.0E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	
	NO PCP	1.0	.0	.3	.3	.3	.0	.0	.3	.0	.0	.6	2.9
	TOT %	1.0	.0	.3	.6	.3	.0	.0	.3	.0	.0	.6	3.2
2<5	PCP	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.6	
	NO PCP	.0	.0	.3	.3	.6	.0	.0	.0	.0	.3	1.6	
	TOT %	.0	.0	.3	.3	1.3	.0	.0	.0	.0	.3	2.3	
5<10	PCP	.8	.8	.5	1.3	1.0	1.0	.6	1.8	.0	.3	8.1	
	NO PCP	4.4	2.3	5.2	9.4	6.0	2.4	3.5	3.5	.0	1.6	38.3	
	TOT %	9.2	3.1	5.7	10.7	7.0	3.4	4.1	5.3	.0	1.9	46.4	
10+	PCP	.0	.8	.5	.3	.6	.0	.0	.3	.0	.0	2.6	
	NO PCP	2.7	2.7	4.9	11.7	7.3	5.1	5.2	3.1	.0	3.2	45.3	
	TOT %	2.7	3.5	5.4	11.4	8.2	5.1	5.2	3.4	.0	3.2	48.1	
TOT OBS													
TOT PCT													
8.8 6.6 11.7 23.1 16.8 8.5 9.3 9.0 .0 6.2 100.0													

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TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSLY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.2	.0	.0	.2	.1	.1	.0	.0	.0	.6	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.0	.0	.2	.1	.1	.0	.0	.0	.6	
1<2	0-3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.4	.7	
	4-10	.2	.0	.2	.2	.0	.0	.0	.0	.0	.0	.6	
	11-21	.0	.0	.0	.2	.2	.0	.0	.2	.0	.0	.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.6	.0	.2	.4	.2	.0	.0	.2	.0	.4	1.8	
2<5	0-3	.0	.0	.2	.0	.2	.0	.0	.0	.0	.2	.6	
	4-10	.0	.0	.2	.2	.6	.0	.0	.0	.0	.0	.9	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.4	.2	.7	.0	.0	.0	.0	.2	1.5	
5<10	0-3	1.3	.4	.7	1.0	.6	.1	.5	1.2	.0	1.5	7.2	
	4-10	1.6	1.8	2.6	4.6	3.8	2.0	2.0	1.2	.0	.0	19.6	
	11-21	.5	.0	.0	1.1	.6	.2	.1	.6	.0	.0	3.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
	TOT %	3.3	2.1	3.3	5.7	4.9	2.3	2.5	3.2	.0	1.5	29.9	
10+	0-3	.6	.6	1.7	2.4	2.4	1.2	1.8	.9	.0	9.4	21.0	
	4-10	1.9	3.9	5.7	10.1	8.3	6.0	3.4	2.3	.0	.0	41.5	
	11-21	.0	.4	.3	.7	.7	.6	.6	.4	.0	.0	3.7	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	2.4	4.8	7.7	13.2	11.4	7.8	5.8	3.6	.0	9.4	66.2	
TOT OBS													
TOT PCT													
6.3 7.1 11.5 20.6 17.4 10.2 8.4 7.0 .0 11.4 100.0													

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PERIOD: (PRIMARY, 1908-1972  
(OVER-ALL) 1854-1972AREA 0005 BANGKA ISLAND NORTHWEST  
.05 105.0E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 AN/ HGT	TOTAL OBS
00003	.0	3.4	.0	3.4	13.8	10.3	.0	6.9	.0	.0	37.9	62.1	29
06009	.0	.0	.0	3.4	10.3	10.3	.0	.0	.0	.0	24.1	74.9	29
12015	.0	.0	.0	10.5	13.2	5.3	5.3	.0	.0	.0	34.2	65.8	38
18021	.0	.0	.0	8.0	20.0	.0	4.0	.0	.0	4.0	36.0	64.0	25
TOT	0	1	0	8	17	8	3	2	0	1	40	81	121
PCT	.0	.8	.0	6.6	14.0	6.6	2.5	1.7	.0	.0	33.1	66.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (FM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1/2	2<5	5<10	10+	TOTAL OBS
00003	.0	1.0	1.0	1.0	38.1	58.8	97
06009	.0	.5	3.3	1.6	33.5	61.0	182
12015	.0	.0	2.3	2.3	26.0	69.5	131
18021	.0	.6	1.2	1.2	33.7	63.4	172
TOT	0	3	17	9	190	368	582
PCT	.0	.5	2.1	1.5	32.0	63.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	3.6	7.1	32.1	60.7	28
06009	.0	.0	8.0	20.0	72.0	25
12015	.0	.0	13.2	21.1	65.8	38
18021	.0	.0	17.4	26.1	56.5	23
TOT	0	1	13	28	73	114
PCT	.0	.9	11.4	24.6	64.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.4	.0	.0	.0	1	.4
85/89	.0	.0	.0	.0	2.4	8.1	2.8	.4	34	13.7
80/84	.0	.0	.0	.0	.3	27.5	44.8	5.6	196	79.0
75/79	.0	.0	.0	.0	.0	.4	1.6	4.8	17	6.9
TOTAL	0	0	0	0	9	90	122	27	248	100.0
PCT	.0	.0	.0	.0	3.6	36.3	49.2	10.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4
85	1.6	.5	1.7	3.7	2.9	.9	.0	1.2	.0	.8
80	5.7	5.7	12.0	21.0	12.0	3.6	7.8	5.9	.0	5.2
75	.2	.6	.4	.4	.4	1.8	1.8	1.2	.0	.0
TOT	7.6	7.2	14.1	25.1	15.3	6.4	9.6	8.4	.0	6.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	87	84	82	77	75	75	81.3	146
06009	92	91	88	83	78	74	73	83.1	338
12015	86	85	85	82	79	76	75	81.7	187
18021	85	84	84	82	78	77	75	81.4	284
TOT	92	90	86	82	78	75	73	82.0	955

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	3.6	30.4	46.4	19.6	83	56		56
06009	.0	.0	11.1	42.0	39.5	7.4	78	81		81
12015	.0	.0	.0	36.5	54.0	9.5	82	63		63
18021	.0	.0	.0	29.4	62.4	8.2	83	85		85
TOT	0	0	11	99	145	30	81	285		285

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PERIOD: (PRIMARY) 1908-1972  
(OVER-ALL) 1854-1972AREA 0005 BANGKA ISLAND NORTHWEST  
.63 105.0E

TABLE 17

PCT FRQ OF A1' TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	WG FOG
5	.0	.0	.0	.4	.4	2	.0	.8
4	.0	.0	.4	1.6	.0	5	.0	2.0
3	.0	.4	1.2	2.0	.0	9	.0	3.6
2	.0	.0	.4	5.6	.4	11	.0	4.4
1	.0	.4	5.6	3.2	.0	23	.0	9.1
0	.0	.4	13.5	4.8	.0	47	.0	18.7
-1	.0	2.8	13.1	.4	.0	41	.0	16.3
-2	.0	2.4	14.7	.4	.0	44	.4	17.1
-3	.0	1.6	7.9	.8	.0	26	.4	9.9
-4	.0	5.6	3.2	.4	.0	23	.0	9.1
-5	.0	1.2	2.4	.0	.0	9	.4	3.2
-6	.0	.4	.8	.0	.0	3	.0	1.2
-7/-8	.4	2.4	.4	.0	.0	8	.0	3.2
-9/-10	.0	.0	.4	.0	.0	1	.0	.4
TOTAL	1	44	41	252	100.0	1.2	98.8	
PCT	.4	17.5	65.1	16.3	.8			

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	N 22-33	34-47	48+	PCT	1-3	4-10	11-21	NE 22-33	34-47	48+	PCT
<1	.0	1.7	.0	.0	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	3.0	1.7	7.6	.0	.0	.0	.0	9.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-88	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.7	.0	.0	.0	.0	4.7	1.7	7.6	.0	.0	.0	.0	9.3

HGT	1-3	4-10	11-21	E 22-33	34-47	48+	PCT	1-3	4-10	11-21	SE 22-33	34-47	48+	PCT
<1	3.4	3.0	.0	.0	.0	.0	6.4	1.7	2.5	.0	.0	.0	.0	4.2
1-2	.0	9.3	.0	.0	.0	.0	9.3	.0	13.1	1.7	.0	.0	.0	14.8
3-4	.0	3.4	1.7	.0	.0	.0	5.1	.0	5.5	.0	.0	.0	.0	5.5
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	1.7	1.7	.0	.0	.0	3.4
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-88	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	3.4	15.7	1.7	.0	.0	.0	20.8	1.7	22.9	3.4	.0	.0	.0	28.0

PERIOD: (OVER-ALL) 1963-1972

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AREA 0005 BANGKA ISLAND NORTHWEST  
.05 105.0E

TABLE 16 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.7	1.3	.0	.0	.0	.0	3.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	9.3	4.7	.0	.0	.0	14.0	.0	3.8	.4	.0	.0	.0	4.2
3-4	.0	1.3	.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.7	11.9	4.7	.0	.0	.0	18.2	.0	3.8	.4	.0	.0	.0	4.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.7	.0	.0	.0	.0	1.7	1.7	.0	.0	.0	.0	.0	1.7	
1-2	1.7	2.3	.0	.0	.0	.0	4.2	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.7	4.7	.0	.0	.0	.0	5.9	1.7	.4	.0	.0	.0	.0	2.1	93.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	14.8	9.8	.0	.0	.0	.0	24.6	
1-2	6.6	47.5	6.6	.0	.0	.0	60.7	
3-4	.0	9.8	1.6	.0	.0	.0	11.5	
5-6	.0	.0	.0	.0	.0	.0	.0	
7	.0	1.6	1.6	.0	.0	.0	3.2	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	21.3	68.9	9.8	.0	.0	.0	100.0	61

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	7.2	44.3	5.2	3.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	58	2
6-7	.0	.0	3.1	2.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	4
8-9	.0	.0	.0	2.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	6
10-11	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	2
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	5
INDEX	23.7	4.1	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	28	0
TOTAL	30	48	8	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97	2
PCT	30.9	49.3	8.2	9.3	2.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

NOVEMBER

PERIOD: (PRIMARY) 1908-1972  
(OVER-ALL) 1857-1972

AREA 0005 BANGKA ISLAND NORTHWEST  
.75 105.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	PRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	5.2	8.7	.0	.0	.0	.0	.0	13.9	.0	8.2	4.3	.0	.0	.0	75.3
NE	14.0	14.0	.0	.0	.0	.0	.0	27.9	1.2	10.5	2.3	.0	.0	.0	62.8
E	.0	11.4	.0	.0	.0	.0	.0	11.4	8.6	5.7	.0	.0	.0	.0	74.3
SE	.0	3.1	.0	.0	.0	.0	.0	3.1	.8	.0	.0	.0	3.1	.0	93.0
S	.0	2.8	.0	.0	.0	.0	.0	2.8	6.4	.0	.0	.0	.0	.0	90.8
SW	11.0	1.1	.0	.0	.0	.0	.0	12.1	.0	.0	4.4	.0	.0	.0	83.5
W	17.3	1.4	.0	.0	.0	.0	.0	18.7	7.9	.0	.0	.0	.0	.0	73.4
NW	8.1	17.2	.0	.0	.0	.0	.0	25.3	4.1	10.0	1.8	.0	.0	.0	62.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	8.0	.0	.0	.0	.0	.0	.0	8.0	4.0	.0	.0	.0	.0	.0	88.0
TOT PCT	7.4	7.4	.0	.0	.0	.0	.0	14.7	3.2	4.6	1.8	.0	.4	.0	76.8
TOT OBS:	285														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	PRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
0000	3.0	6.1	.0	.0	.0	.0	.0	9.1	3.0	.0	3.0	.0	1.5	.0	83.3
0600	7.0	8.1	.0	.0	.0	.0	.0	15.1	7.0	2.3	.0	.0	2.3	.0	74.4
1200	5.3	3.9	.0	.0	.0	.0	.0	9.2	1.3	7.9	1.3	.0	.0	.0	81.6
1800	11.4	13.9	2.5	.0	.0	.0	.0	27.8	.0	8.9	2.5	.0	.0	.0	62.3
TOT PCT	6.8	8.1	.7	.0	.0	.0	.0	15.6	2.9	4.9	1.6	.0	1.0	.0	75.2
TOT OBS:	307														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	2.5	9.6	2.3	.1	.0	.0		14.8	7.3		12.4	30.0	9.2	17.5	19.6	16.7	20.8	8.7
NE	1.0	5.9	.6	.0	.0	.0		7.6	6.2		8.8	10.0	5.4	8.4	5.9	8.3	14.2	5.9
E	1.2	2.8	.3	.0	.0	.0		4.4	5.5		2.9	.0	3.8	5.4	7.7	16.7	3.3	2.0
SE	1.3	6.2	.6	.0	.0	.0		8.2	6.3		6.9	10.0	6.7	7.8	7.4	39.3	10.0	9.8
S	2.1	6.4	.4	.1	.0	.0		8.9	6.2		12.4	20.0	9.7	7.1	7.9	8.3	5.3	10.6
SW	2.2	10.4	.9	.3	.0	.0		13.9	6.7		22.3	.0	15.8	12.3	8.4	8.3	9.1	17.3
W	2.4	8.4	2.1	.2	.0	.0		13.0	7.3		10.0	20.0	21.6	14.2	8.4	8.3	6.8	14.2
NW	3.3	10.0	2.3	.0	.0	.0		15.6	6.8		14.6	10.0	17.8	13.1	17.0	.0	13.0	18.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	13.7							13.7	.0		11.7	.0	10.1	14.2	17.7	.0	17.5	13.4
TOT DBS	275	552	92	6	0	0	925		5.8		137	10	199	134	175	6	137	127
TOT PCT	29.7	59.7	9.9	.6	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-6	7-16	17-27	28-40	41+						00	06	12	18	03	09	15	21
N	8.6	5.4	.8	.0	.0			14.8	7.3		13.6	12.5	19.5	15.0				
NE	5.1	2.3	.0	.0	.0			7.6	6.2		7.0	6.6	5.9	10.2				
E	3.2	1.1	.1	.0	.0			4.4	5.5		2.7	4.4	8.0	2.7				
SE	5.1	3.1	.1	.0	.0			8.2	6.3		7.1	7.1	8.3	9.9				
S	5.6	3.1	.2	.0	.0			8.9	6.2		12.9	8.6	7.9	7.9				
SW	8.6	4.6	.7	.0	.0			13.9	6.7		20.7	14.4	8.4	13.1				
W	6.7	5.8	.5	.0	.0			15.0	7.3		10.7	18.6	8.4	10.3				
NW	8.8	6.3	.3	.0	.0			15.6	6.8		14.3	15.9	16.4	15.4				
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0				
CALM	13.7							13.7	.0		10.9	11.7	17.1	15.5				
TOT DBS	604	297	24	0	0	925			5.8		147	233	181	284				
TOT PCT	65.3	32.1	2.6	.0	.0			100.0			100.0	100.0	100.0	100.0				

PERIOD: (PRIMARY) 1908-1972  
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	10.9	14.3	66.0	8.2	.7	.0	.0	6.0	100.0	147
06009	11.7	18.0	58.9	10.5	.9	.0	.0	5.8	100.0	333
12015	17.1	20.4	53.6	8.8	.0	.0	.0	5.2	100.0	181
18021	15.5	11.4	61.4	11.0	.8	.0	.0	6.0	100.0	264
TOT	127	148	352	92	6	0	0	5.9		925
PCT	13.7	16.0	59.7	9.9	.6	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL CLOUD OBS	MEAN CLOUD COVER
N	2.3	4.3	8.1	6.5		6.0
NE	.2	2.1	2.7	1.2		5.9
E	.8	.8	.8	.6		4.5
SE	.0	1.9	3.1	.8		5.2
S	.0	2.3	4.3	3.7		6.2
SW	.8	.0	2.7	3.7		6.7
W	.0	3.7	6.4	.8		5.4
NW	.8	3.9	5.2	5.4		5.8
VAR	.0	.0	.0	.0		.0
CALM	3.3	3.3	5.0	2.5		4.8
TOT OBS	10	27	51	33	121	5.7
TOT PCT	8.3	22.3	42.1	27.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.4	.0	.0	1.2	7.2	2.9	.6	.0	.0	.8	9.9	
.4	.0	.8	.2	.8	.2	.0	.0	.0	.0	3.7	
.0	.0	.0	.0	.8	.0	.0	.0	.0	.0	2.3	
.0	.0	.0	.0	1.7	.4	.0	.0	.0	.0	3.7	
.0	.0	.6	.8	1.4	1.2	.0	.0	.0	.0	10.1	
.8	.0	.2	.0	1.9	1.7	.0	.8	.0	.0	1.9	
.8	.0	.0	.6	1.7	.0	.0	.6	.0	.0	7.2	
.0	.0	.0	1.2	1.0	1.0	.2	.2	.0	.8	10.7	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	1.7	.0	.0	.0	.0	.0	12.4	
.3	.0	.2	.5	22	9	1	2	.0	2	75	
2.5	.0	1.7	4.1	18.2	7.4	.8	1.7	.0	1.7	62.0	121
											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	>10	>5	>2	VSBY (NM) >1	>1/2	>1/4	>50YD	>0
>6500	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
>5000	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
>3500	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
>2000	10.4	12.0	12.0	12.0	12.0	12.0	12.0	12.0
>1000	25.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6
>600	28.0	33.6	33.6	33.6	33.6	33.6	33.6	33.6
>300	28.0	34.4	35.2	35.2	35.2	35.2	35.2	35.2
>150	28.0	34.4	35.2	35.2	35.2	35.2	35.2	35.2
>0	28.8	36.8	37.6	37.6	37.6	37.6	37.6	37.6
TOTAL	36	46	47	47	47	47	47	47

TOTAL NUMBER OF OBS: 125

PCT FREQ NH <5/8: 62.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	9	TOTAL OBS
.7	13.3	22.2	14.8	12.6	11.9	8.1	8.1	8.1	.0	135

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.4	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0	.7
	NO PCP	.0	.0	.0	.4	.0	.5	.5	.0	.0	.0	.0	1.4
	TOT %	.4	.0	.0	.4	.3	.6	.5	.0	.0	.0	.0	2.1
5<10	PCP	1.9	1.6	.4	.0	.0	.5	1.9	3.9	.0	.4	10.5	
	NO PCP	7.4	1.8	.7	4.6	2.0	3.2	2.9	5.4	.0	2.1	30.2	
	TOT %	9.3	3.4	1.1	4.6	2.0	3.8	4.8	9.3	.0	2.5	40.7	
10+	PCP	.5	.4	.0	.4	.0	.4	.4	1.1	.0	.4	3.5	
	NO PCP	10.1	3.6	2.0	5.6	7.3	3.2	6.5	9.0	.0	6.0	53.3	
	TOT %	10.6	4.1	2.0	6.0	7.3	3.6	6.8	10.1	.0	6.3	56.8	
TOT OBS													
TOT PCT													
		20.3	7.5	3.1	11.2	9.6	8.0	12.2	19.4	.0	8.8	100.0	285

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
1<2	0-3	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.2	.0	.4	.0	.0	.0	.0	.8	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.0	.6	.0	.2	.0	.0	.9	
2<5	0-3	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	.4	
	4-10	.2	.0	.0	.2	.1	.2	.2	.0	.0	.0	.9	
	11-21	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.0	.0	.3	.2	.3	.3	.0	.0	.2	1.5	
5<10	0-3	.9	.0	.0	.2	.6	.2	.2	.8	.0	1.7	4.3	
	4-10	3.0	1.4	.5	2.4	1.1	1.9	2.2	3.0	.0	.0	15.4	
	11-21	1.6	.6	.2	.2	.0	.1	1.0	1.7	.0	.0	5.3	
	22+	.0	.0	.0	.0	.1	.8	.0	.0	.0	.0	.2	
	TOT %	5.5	1.9	.7	2.8	1.8	2.2	3.3	5.5	.0	1.7	25.4	
10+	0-3	1.8	.9	.8	.9	1.5	.8	1.1	2.8	.0	14.5	25.2	
	4-10	6.9	3.9	1.6	3.8	5.3	6.3	5.9	8.0	.0	.0	41.6	
	11-21	1.6	.2	.0	.6	.4	.6	.6	1.1	.0	.0	4.9	
	22+	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	TOT %	10.5	5.0	2.5	5.3	7.2	7.4	7.6	11.9	.0	14.5	71.9	
TOT OBS													
TOT PCT													
		16.1	7.0	3.2	8.6	9.3	10.5	11.3	17.6	.0	16.6	100.0	931

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH  $\geq 4/8$ ) AND  
OCCURRENCE OF NH  $\leq 5/8$  BY HOUR

HOUR (GMT)	000 149	150 299	300 599	400 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH $\leq 5/8$ ANY HGT	TOTAL OBS
00003	2.9	.0	2.9	2.9	17.1	11.4	.0	5.7	.0	.0	42.9	57.1	35
06009	3.0	.0	.0	9.1	18.2	.0	3.0	3.0	.0	.0	36.4	63.6	33
12015	2.2	.0	.0	2.2	13.0	6.5	.0	.0	.0	2.2	26.1	73.9	46
18021	.0	.0	5.3	.0	21.1	10.5	.0	.0	.0	5.3	42.1	57.9	19
TOT	3	0	2	5	22	9	1	3	0	2	47	86	133
PCT	2.3	.0	1.5	3.8	16.5	6.8	.8	2.3	.0	1.5	35.3	64.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	3.0	2.0	26.3	68.7	99
06009	.0	.6	2.3	.0	21.4	75.7	173
12015	.0	.0	.0	1.6	22.8	75.6	123
18021	.0	.0	.0	2.5	35.4	62.0	158
TOT	0	1	7	8	147	390	553
PCT	.0	.2	1.3	1.4	26.6	70.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET, NH  $\geq 4/8$ ) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH $\leq 5/8$ AND 5+	TOTAL OBS
00003	2.9	5.9	8.8	35.3	55.9	34
06009	3.1	3.1	12.5	25.0	62.5	32
12015	2.4	2.4	4.8	23.8	71.4	42
18021	.0	5.9	5.9	41.2	52.9	17
TOT	3	5	10	37	78	125
PCT	2.4	4.0	8.0	29.6	62.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.4	.0	.0	.0	1	.4
85/89	.0	.0	.0	.0	2.2	1.3	1.3	.9	13	5.7
80/84	.0	.0	.0	.0	.4	27.4	40.9	6.5	173	75.2
75/79	.0	.0	.0	.0	.0	1.3	7.8	9.6	43	18.7
TOTAL	0	0	0	0	7	69	115	39	230	100.0
PCT	.0	.0	.0	.0	3.0	30.0	50.0	17.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0
85/89	1.5	1.3	.0	1.3	.4	.0	.4	.7	.0	.0
80/84	16.3	4.6	2.0	9.7	7.9	3.7	7.2	13.2	.0	6.7
75/79	3.0	.5	.8	.5	1.1	3.4	4.0	4.5	.0	.9
TOTAL	20.9	6.4	2.7	11.5	9.5	7.1	11.6	20.8	.0	9.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	87	84	81	77	75	75	80.8	145
06009	90	89	86	82	79	76	75	82.5	342
12015	89	86	85	82	79	78	76	81.8	184
18021	88	85	84	81	78	76	74	81.1	267
TOT	90	88	85	82	78	76	74	81.7	938

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	1.9	30.2	49.1	18.8	33	33
06009	.0	.0	3.9	35.3	44.1	14.7	81	68
12015	.0	.0	1.7	27.1	37.6	13.6	83	59
18021	.0	.0	1.5	23.5	54.4	20.6	64	68
TOT	0	0	7	72	127	42	83	248



NOVEMBER

PERIOD: (PRIMARY) 1908-1972  
(OVER-ALL) 1857-1972

AREA 0005 BANGKA ISLAND NORTHWEST  
.75 105.0E

TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FUG	WG FOG
11/13	.0	.0	.0	.0	.4	1	.0	.4
6	.0	.0	.0	.4	.4	2	.0	.8
5	.0	.0	.0	.4	.0	1	.0	.4
2	.0	.0	2.1	.4	.0	6	.4	2.1
1	.0	.4	3.7	.4	.0	11	.0	4.6
0	.0	1.2	15.8	1.2	.0	44	.4	17.8
-1	.0	2.9	15.4	1.7	.0	48	.4	19.5
-2	.0	2.1	17.0	.4	.0	47	.0	19.5
-3	.0	4.1	7.9	.0	.0	29	.4	11.6
-4	.4	4.6	5.0	.0	.0	24	.0	10.0
-5	.0	3.7	2.5	.0	.0	15	.0	6.2
-6	.4	2.5	.0	.0	.0	7	.4	2.5
-7/-8	.0	1.2	.4	.0	.0	4	.0	1.7
-9/-10	.8	.0	.0	.0	.0	2	.0	.8
TOTAL	4	55	168	12	2	241	5	236
PCT	1.7	22.8	69.7	5.0	.8	100.0	2.1	97.9

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	2.1	4.2	.0	.0	.0	.0	6.3	.0	4.2	.0	.0	.0	.0	4.2
1-2	.0	4.2	.0	.0	.0	.0	4.2	.0	.0	2.1	.0	.0	.0	2.1
3-4	.0	1.6	2.1	.0	.0	.0	3.6	.0	.5	.0	.0	.0	.0	.5
5-6	.0	.0	7.8	.0	.0	.0	7.8	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	5.7	2.1	.0	.0	7.8	.0	.5	2.1	.0	.0	.0	2.6
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.1	9.9	15.6	2.1	.0	.0	29.7	.0	5.2	4.2	.0	.0	.0	9.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	4.2	.0	.0	.0	.0	4.2
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	.0	.0	.0	2.1
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	1.6	.0	.0	.0	.0	1.6	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.6	.0	.0	.0	.0	1.6	.0	6.3	.0	.0	.0	.0	6.3

PERIOD: (OVER-ALL) 1963-1972

NOVEMBER

AREA 0005 BANGKA ISLAND NORTHWEST  
.75 105.0E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	2.1	.0	.0	.0	.0	2.1	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	9.9	.0	.0	.0	.0	9.9	.0	2.6	.0	.0	.0	.0	2.6	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	.0	.0	.0	2.1	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	12.0	.0	.0	.0	.0	12.0	.0	4.7	.0	.0	.0	.0	4.7	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	.0	.0	.0	2.1	.0
1-2	.0	3.1	.0	.0	.0	.0	3.1	.0	5.2	2.1	.0	.0	.0	7.3	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	.0	.0	.0	2.1	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.6	.0	.0	.0	2.6	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.5	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.1	.0	.0	.0	.0	3.1	.0	9.4	5.2	.0	.0	.0	14.6	81.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	20.4	18.4	.0	.0	.0	.0	38.8	
1-2	.0	24.5	4.1	.0	.0	.0	28.6	
3-4	.0	8.2	2.0	.0	.0	.0	10.2	
5-6	.0	.0	10.2	.0	.0	.0	10.2	
7	.0	2.0	8.2	2.0	.0	.0	12.2	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	20.4	53.1	24.5	2.0	.0	.0	100.0	49

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-50	61-70	71-86	87+	TOTAL	MEAN HGT
4-6	14.3	25.7	7.6	4.8	5.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	61	2
6-7	.0	1.9	3.8	6.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	4
0-9	.0	1.0	1.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	4
10-11	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	3
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
3-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	18.1	2.9	3.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	26	1
TOTAL	34	33	19	12	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	105	2
PCT	32.4	31.4	18.1	11.4	5.7	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

DECEMBER

PERIOD: (PRIMARY) 1910-1972  
(OVER-ALL) 1856-1972

AREA 0003 BANGKA ISLAND NORTHWEST  
.75 104.9E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WNO DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG NEA
N	4.7	5.3	1.2	.0	.0	.0	.0	11.2	1.2	1.2	1.2	.0	.0	.0	85.3
NE	7.5	.0	.0	.0	.0	.0	.0	9.5	3.2	.0	.0	.0	.0	.0	87.3
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	.0	6.9	.0	.0	.0	.0	.0	6.9	.0	.0	6.9	.0	.0	.0	86.2
S	.0	8.3	.0	.0	.0	.0	.0	8.3	8.3	.0	20.8	.0	.0	.0	62.5
SW	23.1	7.7	3.8	.0	.0	.0	.0	34.6	.0	.0	15.4	.0	.0	.0	50.0
W	12.1	12.1	4.7	.0	.0	.0	.0	28.9	8.1	.0	.0	.0	.0	.0	63.1
NW	3.2	11.3	3.2	.0	.0	.0	.0	17.8	1.6	4.9	.0	.0	.0	.0	77.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.0	.0	.0	.0	.0	90.0
TOT PCT	5.8	6.9	1.9	.0	.0	.0	.0	14.7	2.7	1.9	1.9	.0	.0	.0	79.2
TOT OBS:	259														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	9.4	9.4	3.8	.0	.0	.0	.0	22.6	3.8	1.9	1.9	.0	.0	.0	69.8
06009	5.1	9.2	1.0	.0	.0	.0	.0	15.3	3.1	.0	1.0	.0	.0	.0	80.0
12015	1.8	1.8	1.8	.0	.0	.0	.0	5.3	.0	3.5	1.8	.0	.0	.0	89.5
18021	6.4	6.4	1.3	.0	.0	.0	.0	14.1	2.6	2.6	3.8	.0	.0	.0	78.2
TOT PCT TOT OBS:	5.6 286	7.0	1.7	.0	.0	.0	.0	14.9	2.4	1.7	2.1	.0	.0	.0	79.7

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	2.3	15.2	10.4	1.0	.0	.0		28.9	10.1	25.7	20.0	21.3	33.3	37.3	66.7	37.4	23.3	
NE	1.0	6.5	3.0	.2	.0	.0		10.8	8.9	8.2	10.0	11.1	10.6	12.3	33.3	11.0	10.5	
E	.4	1.3	.1	.0	.0	.0		1.8	5.7	1.1	.0	1.6	2.5	3.2	.0	.9	1.9	
SE	1.2	1.2	.1	.0	.0	.0		2.4	4.2	4.3	.0	2.4	2.0	1.8	.0	1.4	2.9	
S	1.6	1.4	.3	.0	.0	.0		3.3	5.0	6.8	.0	3.4	2.5	1.8	.0	2.3	2.9	
SW	1.9	3.1	.7	.3	.0	.0		6.0	7.4	4.5	.0	8.2	3.0	4.1	.0	5.0	10.0	
W	2.5	10.1	2.0	.5	.0	.0		15.1	7.8	20.5	60.0	13.6	12.6	10.7	.0	13.8	18.6	
NW	2.8	17.6	9.7	.3	.0	.0		26.4	8.4	24.3	10.0	31.5	28.3	27.0	.0	19.0	26.2	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	5.3							5.3	.0	4.5	.0	6.9	5.1	1.8	.0	9.2	3.8	
TOT OBS	139	411	162	18	0	0	730		8.1	110	5	189	99	110	3	109	105	
TOT PCT	19.0	56.3	22.2	2.5	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GHT)				
	0-6	7-16	17-27	28-40	41+						00	03	06	12	18
N	9.8	14.1	4.8	.1	.0			28.9	10.1	25.4	25.4	38.1	30.5		
NE	4.4	5.2	1.1	.0	.0			10.8	8.9	8.3	10.9	12.8	10.7		
E	1.2	.6	.0	.0	.0			1.8	5.7	1.1	1.9	3.1	1.4		
SE	2.1	.3	.0	.0	.0			2.4	4.2	4.1	2.3	1.8	2.1		
S	2.5	.7	.1	.0	.0			3.3	5.0	6.5	3.1	1.8	2.6		
SW	3.8	1.4	.6	.2	.0			6.0	7.4	4.3	6.4	4.0	7.5		
W	6.0	5.7	1.1	.3	.0			15.1	7.8	22.2	13.3	10.4	16.1		
NW	10.3	14.6	1.5	.1	.0			26.4	8.4	23.7	30.4	26.3	22.5		
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0		
CALM	5.3							5.3	.0	4.3	6.3	1.8	6.5		
TOT OBS	346	312	67	5	0	730			8.1	115	288	113	214		
TOT PCT	47.4	42.7	9.2	.7	.0	100.0				100.0	100.0	100.0	100.0		

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOOR	CALM	1-3	4-10	WIND SPEED (KNOTS)			46+	MEAN	PCT	TOTAL
				11-21	22-33	34-47			FREQ	
00003	4.3	15.7	59.1	19.1	1.7	.0	.0	7.6	100.0	115
06009	6.3	14.9	58.3	18.8	1.7	.0	.0	7.6	100.0	288
12015	1.8	16.8	54.0	23.9	3.5	.0	.0	8.6	100.0	113
18021	6.5	9.3	53.3	27.6	3.3	.0	.0	8.6	100.0	214
TOT	39	100	411	162	18	0	0	8.1		730
PCT	5.3	13.7	56.3	22.2	2.5	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND U.R	0-2	3-4	5-7	8 & 9	TOTAL OBS	MEAN CLOUD COVER
N	1.0	9.8	14.7	7.0		5.8
NE	1.0	1.8	7.5	6.2		6.1
E	.0	1.0	1.0	.8		5.8
SE	.0	.0	1.0	.3		7.2
S	.0	.0	1.0	.0		7.0
SW	.0	.0	.0	1.5		8.0
W	.8	1.8	2.6	7.5		6.6
NW	1.3	4.1	8.2	11.9		6.3
VAR	.0	.0	.0	.0		.0
CALM	1.0	4.1	.0	1.0		3.8
TOT OBS	5	22	35	35	97	6.0
TOT PCT	5.2	22.7	36.1	36.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	1.0	5.9	.0	1.8	.0	.0	.0	23.7
.0	1.0	.0	.0	4.1	.0	.0	.0	.0	.0	.0	11.3
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0
.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	1.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	2.8	4.4	1.0	.0	.0	.0	.0	.0	4.4
.0	.0	1.0	4.1	3.9	3.1	2.3	.0	.0	.0	.0	11.1
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	5.2
0	1	2	8	19	5	4	1	0	0	57	97
.0	1.0	2.1	8.2	19.6	5.2	4.1	1.0	.0	.0	58.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				OR			
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.0	.0	.0	.0	.0	.0	.0	.0
>5000	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
>3500	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
>2000	7.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
>1000	22.0	28.0	30.0	30.0	30.0	30.0	30.0	30.0
>600	28.0	36.0	38.0	38.0	38.0	38.0	38.0	38.0
>300	28.0	38.0	40.0	40.0	40.0	40.0	40.0	40.0
>150	29.0	39.0	41.0	41.0	41.0	41.0	41.0	41.0
>0	29.0	39.0	41.0	41.0	41.0	41.0	41.0	41.0
TOTAL	29	39	41	41	41	41	41	41

TOTAL NUMBER OF OBS: 100

PCT FREQ NH <5/8: 59.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
.9	7.4	20.4	15.7	15.7	7.4	6.5	6.5	19.4	.0	108

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.8	.0	.0	.0	.0	.0	.0	.2	.0	.0	.8	
	TOT %	.8	.0	.0	.0	.0	.0	.0	.2	.0	.0	.8	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	.0	.0	.0	.8	.4	.0	.0	1.2	
	NO PCP	.0	.8	.0	.0	.0	.0	.4	.8	.0	.0	1.9	
	TOT %	.0	.8	.0	.0	.0	.0	1.2	1.2	.0	.0	3.1	
5<10	PCP	3.1	.0	.0	.0	.2	.7	2.0	3.3	.0	.0	9.3	
	NO PCP	11.9	2.4	1.2	1.0	2.7	1.5	4.2	6.8	.0	1.5	33.2	
	TOT %	15.0	2.4	1.2	1.0	2.9	2.2	6.3	10.0	.0	1.5	42.5	
10+	PCP	.8	1.2	.0	.2	.2	.2	1.4	.6	.0	.0	4.2	
	NO PCP	14.7	7.8	1.8	1.6	1.5	.1	9.6	11.9	.0	2.3	49.4	
	TOT %	17.3	9.0	1.8	1.8	1.7	.3	6.9	12.5	.0	2.3	53.7	
TOT OBS													239
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.3	.0	.0	.0	.0	.0	.0	.1	.0	.0	.4	.4
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.3	.0	.0	.0	.0	.0	.0	.1	.0	.0	.4	.4
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	.2
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	.2
2<5	0-3	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	.4	.4
	4-10	.2	.2	.0	.0	.0	.0	.4	.7	.0	.0	1.3	1.3
	11-21	.0	.4	.0	.0	.1	.1	.4	.0	.0	.0	1.1	1.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.2	.7	.0	.0	.1	.1	1.1	.7	.0	.2	3.1	3.1
5<10	0-3	.9	.0	.2	.0	.7	.2	.3	.3	.0	1.1	3.9	3.9
	4-10	5.3	.6	.4	.8	1.0	1.0	3.1	3.8	.0	.0	16.0	16.0
	11-21	2.7	1.1	.1	.0	.0	.1	.7	2.3	.0	.0	7.0	7.0
	22+	.0	.2	.0	.0	.0	.1	.1	.2	.0	.0	.7	.7
	TOT %	9.1	1.9	.8	.8	1.6	1.4	4.2	6.7	.0	1.1	27.6	27.6
10+	0-3	1.5	1.1	.4	.8	1.3	.9	1.6	2.0	.0	2.8	12.3	12.3
	4-10	12.2	8.9	1.0	.4	.4	1.4	8.1	14.2	.0	.0	42.7	42.7
	11-21	8.3	2.8	.1	.1	.1	.4	1.1	2.5	.0	.0	13.1	13.1
	22+	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.4
	TOT %	20.3	10.8	1.5	1.4	1.9	2.7	8.8	18.7	.0	2.8	68.7	68.7
TOT PCT													100.0
TOT OBS													457

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00Z03	.0	.0	3.7	11.1	18.5	.0	3.7	3.7	.0	.0	40.7	59.3	27
06Z09	.0	.0	.0	8.6	22.9	8.6	5.7	.0	.0	.0	45.7	54.3	35
12Z15	.0	3.7	3.7	3.7	22.2	3.7	.0	.0	.0	.0	37.0	63.0	27
18Z21	.0	.0	.0	5.9	5.9	5.9	5.9	.0	.0	.0	23.5	76.5	17
TOT	0	1	2	8	20	5	4	1	0	0	41	65	106
PCT	.0	.9	1.9	7.5	18.9	4.7	3.8	.9	.0	.0	38.7	61.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00Z03	.0	.0	.0	3.5	27.9	68.6	86
06Z09	.0	.0	.0	3.5	27.7	68.2	173
12Z15	.0	.0	.0	1.2	28.9	69.9	83
18Z21	.0	.7	.7	2.8	35.2	60.6	142
TOT	0	2	1	14	146	321	484
PCT	.0	.4	.2	2.9	30.2	66.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00Z03	.0	3.8	19.2	23.1	57.7	26
06Z09	.0	.0	8.8	38.2	52.9	34
12Z15	.0	7.7	15.4	23.1	61.5	26
18Z21	.0	.0	7.1	21.4	71.4	14
TOT	0	3	13	28	59	100
PCT	.0	3.0	13.0	28.0	59.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.0	4.9	1.0	.5	13	6.4
80/84	.0	.0	.0	.0	.0	16.2	46.6	12.7	154	75.5
75/79	.0	.0	.0	.0	.0	.5	8.3	9.3	37	18.1
TOTAL	0	0	0	0	0	44	114	46	204	100.0
PCT	.0	.0	.0	.0	.0	21.6	55.9	22.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	2.2	1.0	.5	.0	.0	.0	.0	2.2	.0	.5
80/84	25.2	7.4	2.0	2.2	4.4	2.3	8.6	19.0	.0	4.4
75/79	4.2	2.7	.0	1.2	.5	.9	4.3	4.4	.0	.0
TOTAL	31.6	11.0	2.5	3.4	4.9	3.2	12.9	25.6	.0	4.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00Z03	86	84	83	80	76	74	74	79.8	118
06Z09	91	89	86	82	77	73	72	81.8	287
12Z15	87	86	84	81	77	75	75	81.0	118
18Z21	84	83	82	80	77	74	74	80.2	214
TOT	91	87	85	81	77	74	72	80.9	737

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00Z03	.0	.0	.0	10.3	56.4	33.3	87	39
06Z09	.0	.0	.0	70.8	48.7	20.5	83	78
12Z15	.0	.0	2.0	16.3	57.1	24.5	85	49
18Z21	.0	.0	.0	13.8	60.0	26.2	86	65
TOT	0	0	1	45	127	58	85	231

DECEMBER

PERIOD: (PRIMARY) 1910-1972  
(OVER-ALL) 1856-1972

AREA 0005 BANGKA ISLAND NORTHWEST  
.7S 104.9E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NJ FOG
11/13	.0	.0	.5	.0	.0	1	.0	.5
7/8	.0	.0	.9	.9	.0	3	.0	1.4
5	.0	.0	.5	1.4	.0	4	.0	1.8
4	.0	.0	.5	.9	.5	4	.5	1.4
3	.0	.0	.9	1.4	.0	5	.0	2.3
2	.0	.9	3.6	.9	.0	12	.0	5.4
1	.0	.5	6.8	.0	.0	16	.5	6.8
0	.0	3.6	10.4	1.4	.0	34	.0	15.4
-1	.0	7.7	12.7	.9	.0	47	1.4	19.9
-2	.0	6.6	8.1	.0	.0	37	.0	16.7
-3	.5	5.4	3.6	.0	.0	21	.0	9.5
-4	.5	0.8	.9	.0	.0	18	.0	8.1
-5	.9	2.3	1.8	.0	.0	11	.0	5.0
-6	.5	.5	.0	.0	.0	2	.0	.9
-7/-8	.5	1.4	.9	.0	.0	6	.0	2.7
TOTAL	6	83	115	16	1	221	9	216
PCT	2.7	37.6	52.0	7.2	.5	100.0	2.3	97.7

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	4.7	.0	2.3	.0	.0	.0	.0	2.3
1-2	.0	11.6	13.4	.0	.0	.0	25.0	.0	2.3	4.7	.0	.0	.0	7.0
3-4	.0	.0	8.1	.0	.0	.0	8.1	.0	2.3	5.2	.0	.0	.0	7.6
5-6	.0	.0	2.3	.0	.0	.0	2.3	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	4.7	11.6	23.8	.0	.0	.0	40.1	.0	7.0	9.9	.0	.0	.0	16.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	4.7	.0	.0	.0	.0	4.7	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	2.3	.0	.0	.0	.0	.0	2.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.7	.0	.0	.0	.0	4.7	2.3	.0	.0	.0	.0	.0	2.3

PERIOD: (OVER-ALL) 1963-1972

DECEMBER

AREA 0005 BANGKA ISLAND NORTHWEST  
.75 104.9E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	2.3	.0	.0	.0	.0	.0	2.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	2.3	1.2	.0	.0	.0	3.5	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	2.3	.0	.0	.0	.0	.0	2.3
1-2	.0	.0	1.7	.0	.0	.0	1.7	.0	7.0	.0	.0	.0	.0	.0	7.0
3-4	.0	.0	4.1	.0	.0	.0	4.1	.0	2.3	3.8	.0	.0	.0	.0	6.1
5-6	.0	.0	1.7	.0	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	7.6	.0	.0	.0	7.6	.0	11.6	6.4	.0	.0	.0	18.0	93.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	17.4	8.7	.0	.0	.0	.0	26.1	
1-2	2.2	21.7	19.6	.0	.0	.0	43.5	
3-4	.0	4.3	21.7	.0	.0	.0	26.1	
5-6	.0	.0	4.3	.0	.0	.0	4.3	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	19.6	34.8	45.7	.0	.0	.0	100.0	46

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	6.3	32.5	21.3	1.3	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	30	2
6-7	.0	2.3	5.0	6.3	.0	2.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	4
8-9	.0	1.3	.0	2.3	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	5
10-11	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	11.3	3.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12	1
TOTAL	14	32	21	9	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	80	3
PCT	17.3	40.0	26.3	11.3	1.3	3.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	



PERIOD: (PRIMARY) 1908-1973  
(OVER-ALL) 1854-1973

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AREA 0005 BANGKA ISLAND NORTHWEST  
.75 105.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	3.9	8.0	.5	.0	.0	.0	.0	12.4	.4	5.1	6.9	.0	4.9	.0	70.5
NE	5.7	5.5	.1	.0	.0	.0	.2	11.5	1.6	5.2	3.8	.0	2.2	.0	76.2
E	3.6	2.5	.5	.0	.0	.0	.0	6.6	.9	3.2	2.2	.0	1.3	.0	86.1
SE	1.8	2.3	.4	.0	.0	.0	.0	4.5	.6	2.0	1.6	.0	2.1	.0	85.4
S	3.4	7.8	.1	.0	.0	.0	.2	11.5	2.3	1.6	3.2	.0	.8	.1	81.1
SW	8.3	6.6	.3	.0	.0	.0	.2	15.5	4.3	4.4	2.8	.0	.0	.0	73.0
W	13.6	3.4	1.0	.0	.0	.0	.2	18.1	5.6	3.6	.9	.0	2.0	.0	70.7
NW	5.1	5.7	1.2	.0	.0	.0	.0	11.9	1.2	4.6	1.3	.0	.4	.0	81.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.5	3.5	.0	.0	.0	.0	.0	7.1	1.4	10.8	.0	.0	1.3	.0	79.9
TOT PCT	4.1	4.5	.5	.0	.0	.0	.1	9.2	1.7	3.1	2.2	.0	1.4	.0	82.8
TOT OBS:	3615														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	4.9	5.6	.6	.0	.0	.0	.0	11.1	1.9	.5	1.8	.0	1.2	.1	83.6
06009	4.7	7.0	.4	.0	.0	.0	.1	12.1	1.9	1.1	2.3	.0	2.1	.0	81.1
12015	3.2	2.4	.6	.0	.0	.0	.1	6.3	1.0	4.0	2.4	.0	.5	.0	86.3
18021	5.0	4.8	.8	.0	.0	.0	.1	10.7	1.6	7.6	3.4	.0	1.8	.0	75.8
TOT PCT	4.5	5.1	.6	.0	.0	.0	.1	10.2	1.6	3.4	2.5	.0	1.4	.0	81.3
TOT OBS:	3895														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12
N	1.8	9.5	9.9	.2	*	.0		15.4	6.7	13.2	17.2	13.6	16.8	18.4	21.3
NE	1.5	6.5	1.4	.1	.0	.0		9.6	6.6	7.8	3.8	4.9	9.7	11.3	12.8
E	1.6	6.2	.7	*	.0	.0		8.6	6.1	7.2	4.1	6.3	6.4	10.7	17.5
SE	2.3	14.6	9.7	.1	*	.0		20.6	6.3	23.6	22.9	20.3	19.3	19.6	24.1
S	2.2	9.4	1.9	*	.0	.0		13.5	6.5	15.2	15.1	15.6	14.1	11.0	10.6
SW	1.3	4.7	.8	.1	*	.0		6.9	6.8	8.7	10.6	8.4	6.1	5.2	3.6
W	1.3	4.1	.9	.1	*	.0		6.5	7.5	7.4	10.5	9.0	6.0	4.7	2.9
NW	1.7	6.9	1.9	.1	*	.0		10.6	7.0	10.7	9.2	12.5	12.5	9.7	5.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	8.2							8.2	.0	4.1	4.6	7.4	7.1	9.4	2.7
TOT OBS							11351		6.9	1712	102	2450	1565	2027	101
TOT PCT	22.0	61.9	15.3	.7	*	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	03	09	18
N	6.4	7.8	1.3	*	.0		15.4	6.7	13.4	14.9	18.5	15.3
NE	5.0	4.2	.3	*	.0		9.6	6.6	7.8	8.0	11.3	11.3
E	5.2	3.4	.1	.0	.0		8.6	6.1	7.0	7.1	11.0	9.8
SE	9.3	10.8	.5	.0	.0		20.6	6.3	23.6	19.9	19.8	20.4
S	7.1	6.1	.3	*	.0		13.5	6.5	15.2	15.0	11.0	12.5
SW	4.1	2.5	.3	*	.0		6.9	6.8	8.7	7.5	5.1	6.4
W	3.6	2.4	.4	*	.0		6.5	7.5	7.6	7.8	4.6	5.4
NW	5.0	5.2	.4	*	.0		10.6	7.0	10.7	12.5	9.6	9.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	8.2						8.2	.0	6.0	7.3	9.1	9.9
TOT OBS						11351		6.9	1814	4015	2128	3394
TOT PCT	53.9	42.4	3.5	.2	*		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1908-1973  
(OVER-ALL) 1854-1973

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47	48+			
00003	6.0	14.2	69.5	16.0	.4	.0	.0	6.9	100.0	1814
06009	7.3	14.5	60.6	16.6	.9	.0	.0	7.1	100.0	4015
12015	9.1	13.8	62.1	14.4	.5	.0	.0	6.7	100.0	2128
18021	9.9	12.7	62.5	14.1	.7	.1	.0	6.7	100.0	3394
TOT								6.9		11351
PCT	6.2	13.8	61.9	15.3	.7	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

BY WIND DIRECTION						
WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL CBL	MEAN CLOUD COVER
N	2.3	3.8	7.6	3.9		4.1
NE	1.7	2.3	3.6	1.9		5.2
E	1.9	2.6	2.3	1.4		5.4
SE	4.6	4.8	8.7	3.6		5.2
S	2.4	3.2	6.2	2.9		4.7
SW	.5	.7	2.5	1.9		6.1
W	.4	1.0	3.1	2.2		6.0
NW	.7	2.0	3.5	3.4		5.1
VAR	.0	.0	.0	.0		.0
CALM	1.3	2.1	2.1	.9		4.9
TOT OBS					1378	5.2
TOT PCT	15.7	22.7	39.7	21.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) > 4/8  
AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+ NH < 5/8 ANY HGT	TOTAL OBS
.3	.7	.8	5.6	11.8	6.6	2.7	.8	.1	.9	70.2

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)								
	> 10	> 5	> 2	> 1	> 1/2	> 1/4	> 50YD	> 0	> 0
> 6500	.9	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
> 5000	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
> 3500	3.7	4.8	4.7	4.7	4.7	4.7	4.7	4.7	4.7
> 2000	9.2	11.0	11.3	11.3	11.3	11.3	11.3	11.3	11.3
> 1000	18.4	22.0	23.0	23.1	23.1	23.1	23.1	23.1	23.1
> 600	22.4	27.1	28.3	28.6	28.7	28.7	28.7	28.7	28.7
> 300	22.5	27.8	29.1	29.4	29.5	29.5	29.6	29.6	29.6
> 150	22.6	27.9	29.2	29.6	29.7	29.7	29.7	29.7	29.7
> 0	22.8	28.1	29.3	29.8	29.9	29.9	30.0	30.0	30.0

TOTAL NUMBER OF OBS: 1407

PCT FREQ NH < 5/8: 70.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
4.8	15.1	22.3	15.7	12.2	8.1	7.5	5.2	9.0	.0	1525

PERIOD: (PRIMARY) 1908-1973  
(OVER-ALL) 1854-1973

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.1	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.3
	TOT %	.1	.1	.0	.1	.0	.0	.1	.0	.0	.0	.0	.4
1<2	PCP	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
	NO PCP	.2	.1	.1	.3	.1	.0	.0	.0	.0	.1	.1	.9
	TOT %	.2	.1	.1	.4	.1	.0	.1	.1	.0	.1	1.1	
2<5	PCP	.0	.0	.0	.1	.1	.1	.2	.1	.0	.0	.0	.6
	NO PCP	.1	.1	.1	.1	.1	.1	.1	.1	.0	.1	.9	
	TOT %	.1	.1	.1	.2	.2	.2	.3	.2	.0	.1	1.5	
5<10	PCP	1.3	.7	.4	.6	.5	.6	.7	1.4	.0	.2	6.3	
	NO PCP	5.8	3.3	3.1	6.9	3.8	1.5	1.8	3.4	.0	1.5	33.1	
	TOT %	7.0	4.0	3.4	9.5	4.3	2.0	2.5	4.8	.0	1.7	39.4	
10+	PCP	.3	.3	.1	.2	.3	.7	.3	.3	.0	.0	2.0	
	NO PCP	9.2	5.4	4.8	13.4	8.2	3.0	3.4	5.3	.0	3.0	55.6	
	TOT %	9.5	5.7	4.9	13.6	8.5	3.7	3.7	5.5	.0	3.0	57.6	
TOT OBS													
TOT PCT													
		16.9	10.0	8.6	23.8	13.1	5.4	6.4	10.6	.0	4.9	100.0	3614

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.2
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.3
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.1	.0	.1	.1	.0	.0	.0	.1	.0	.0	.0	.4
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.1	.1	.2	.1	.1	.0	.1	.0	.1	.8	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.1	.0	.1	.1	.1	.1	.1	.1	.0	.0	.0	.7
	11-21	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.4
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.1	.1	.2	.2	.2	.2	.2	.0	.1	1.4	
5<10	0-3	.4	.3	.4	.4	.4	.2	.2	.4	.0	1.1	3.9	
	4-10	2.7	1.5	1.4	.9	1.7	1.0	1.1	1.6	.0	.0	13.1	
	11-21	1.0	.5	.2	1.3	.5	.1	.2	.8	.0	.0	4.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	4.2	2.4	2.0	5.7	2.7	1.3	1.6	2.8	.0	1.1	23.8	
10+	0-3	1.4	1.1	1.2	1.7	1.6	1.0	.9	1.1	.0	6.5	16.5	
	4-10	7.1	4.9	4.4	11.9	7.6	3.4	2.8	5.3	.0	.0	47.4	
	11-21	2.4	.9	.5	2.5	1.4	.3	.4	1.0	.0	.0	9.3	
	22+	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	11.0	6.9	6.1	16.1	10.6	4.7	4.1	7.4	.0	6.5	73.6	
TOT OBS													
TOT PCT													
		15.5	9.5	8.3	22.3	13.6	6.3	6.0	10.6	.0	7.9	100.0	6698

PERIOD: (PRIMARY) 1908-1973  
(OVER-ALL) 1854-1973

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.2	.3	.5	5.4	11.8	7.2	2.4	1.5	.5	.5	30.6	69.4	382
06009	.3	.0	.5	6.0	13.4	7.4	1.9	1.0	.0	.9	31.3	68.7	363
12015	.2	.3	1.0	3.5	11.4	4.7	2.9	.0	.0	1.0	25.0	75.0	434
18021	.3	.0	1.6	6.0	7.7	5.3	3.2	.6	.0	1.3	25.9	74.1	311
TOT PCT	.3	.1	.8	5.3	11.2	6.2	2.6	.8	.1	.9	28.3	71.7	1490 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2-1	1-2	2-5	5-10	10+	TOTAL OBS
00003	.3	.3	1.0	1.5	24.5	72.5	1228
06009	.1	.5	1.0	1.2	25.0	72.2	2186
12015	.1	.3	.5	1.5	22.5	75.1	1467
18021	.1	.3	.9	1.4	28.3	69.0	2097
TOT PCT	.1	.3	.9	1.4	25.3	72.0	6978 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.2	1.1	7.1	24.7	68.2	769
06009	.3	.7	9.0	21.2	68.8	40
12015	.2	1.9	6.8	19.8	73.4	113
18021	.3	2.1	9.5	18.8	71.4	285
TOT PCT	.3	1.4	8.1	22.0	69.9	1407 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.3	.1	.0	.0	.5	
85/89	.0	.0	.0	.0	1.4	6.8	3.0	.4	11.7	
80/84	.0	.0	.0	.0	.9	23.0	43.2	9.3	76.4	
75/79	.0	.0	.0	.0	.1	.6	5.2	5.4	11.3	
70/74	.0	.0	.0	.0	.0	.0	.1	.1	.1	
TOTAL PCT	.0	.0	.0	.1	2.8	30.5	51.5	15.2	2817	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90	.0	.1	.1	.1	.1	.1	.0	.0	.0	.1
85	1.3	.9	1.2	4.1	1.8	.4	.3	.9	.0	.7
80	13.1	7.6	7.5	19.3	9.8	3.2	4.3	7.5	.0	4.1
75	2.4	1.2	.4	1.1	.9	1.0	1.9	2.3	.0	.1
70	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
TOTAL	16.8	9.8	9.2	24.6	12.7	4.8	6.5	10.7	.0	5.0

TABLE 15

MEAN, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	93	87	85	81	77	75	73	81.2	1826
06009	95	90	88	83	79	76	70	83.1	4005
12015	89	85	84	82	79	77	74	81.9	2141
18021	89	84	83	81	78	76	71	81.3	3415
TOT	95	88	86	82	78	76	70	82.0	11387

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.2	1.0	22.5	55.0	21.4	84	632		
06009	.0	.2	7.1	41.2	40.1	11.4	80	886		
12015	.0	.0	1.7	31.8	52.7	13.8	82	673		
18021	.0	.0	.8	21.5	59.6	18.2	84	879		
TOT	0	3	84	904	1985	494	83	3070		

PERIOD: (PRIMARY) 1908-1973  
(OVER-ALL) 1954-1973

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.1	.0	*	3	.0	.1
9/10	.0	.0	.0	.1	.0	.1	6	.0	.2
7/8	.0	.0	.0	.2	.2	.2	20	.0	.6
6	.0	.0	*	.1	.2	.2	18	.0	.6
5	.0	.0	.0	.3	.5	.5	33	.0	1.1
4	.0	.0	.1	.5	1.3	.2	62	.1	2.0
3	.0	.0	*	.6	1.3	*	57	*	1.9
2	.0	*	.1	3.7	2.3	.2	188	.1	6.2
1	.0	.0	.4	5.7	2.1	.0	245	.4	7.8
0	.0	.0	2.1	14.9	3.0	.0	597	.6	19.3
-1	.0	.1	3.6	14.2	.9	.0	564	.6	18.2
-2	.0	.1	3.9	12.9	.4	.0	518	.3	16.9
-3	.0	.1	2.6	5.3	.3	.0	245	.2	4.1
-4	.0	.1	3.4	3.6	.2	.0	222	.1	7.2
-5	.0	.2	2.0	1.9	.0	.0	119	*	4.0
-6	.0	.1	.8	.5	.0	.0	37	*	1.2
-7/-8	.0	.2	1.1	.4	.0	.0	49	.0	1.6
-9/-10	.0	.1	.1	*	.0	.0	7	.0	.2
-11/-13	*	.0	*	*	.0	.0	3	.0	.1
TOTAL							2994		
PCT	*	1.0	20.3	64.6	12.8	1.3	100.0	2.5	97.5

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.9	2.7	.1	.0	.0	.0	3.8	.5	1.6	.0	.0	.0	.0	2.1
1-2	.1	4.8	3.0	.0	.0	.0	7.9	.4	3.7	1.3	.0	.0	.0	5.5
3-4	.0	1.9	2.8	.0	.0	.0	4.7	.0	1.2	1.1	.0	.0	.0	2.4
5-6	.0	.2	1.8	.0	.0	.0	2.0	.0	*	.4	.0	.0	.0	.4
7	.0	.0	.6	.2	.0	.0	.8	.0	*	.2	.0	.0	.0	.2
8-9	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	9.8	8.3	.2	.0	.0	19.3	.9	6.6	3.0	.0	.0	.0	10.6

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.4	1.6	.0	.0	.0	.0	2.0	.3	3.3	.0	.0	.0	.0	3.6
1-2	.0	3.6	1.0	.0	.0	.0	4.6	1.1	9.6	2.2	.0	.0	.0	12.9
3-4	.0	1.0	.4	.0	.0	.0	1.3	.0	3.0	3.4	.0	.0	.0	6.3
5-6	.0	.1	.3	.0	.0	.0	.4	.0	.2	1.4	*	.0	.0	1.6
7	.0	.1	.0	.0	.0	.0	.1	.0	.1	.2	.0	.0	.0	.3
8-9	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	6.5	1.6	.0	.0	.0	8.6	1.4	16.3	7.2	*	.0	.0	24.9

PERIOD: (OVER-ALL) 1963-1973

ANNUAL

AREA 0005 BANGKA ISLAND NORTHWEST  
75 105.0E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.1	.0	.0	.0	.0	1.5	.2	.9	.0	.0	.0	.0	1.0
1-2	.3	0.6	1.4	.0	.0	.0	8.3	.2	2.2	.1	.0	.0	.0	2.4
3-4	.0	.8	1.3	.0	.0	.0	2.1	.0	.5	.4	.0	.0	.0	.9
5-6	.0	.2	.8	.1	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	8.6	3.7	.1	.0	.0	13.2	.3	3.5	.5	.0	.0	.0	4.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	.7	.0	.0	.0	.0	1.0	.5	1.0	.0	.0	.0	.0	1.5	
1-2	.1	1.6	.4	.0	.0	.0	2.1	.1	2.0	.7	.0	.0	.0	2.8	
3-4	.0	.1	.3	.0	.0	.0	.5	.1	.7	1.9	.2	.0	.0	2.9	
5-6	.0	.0	.1	.1	.0	.0	.3	.0	.0	.4	.0	.0	.0	.4	
7	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	2.4	1.1	.1	.0	.0	4.1	.7	3.7	3.0	.2	.0	.0	7.6	92.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT PCT
<1	15.7	12.9	.1	.0	.0	.0	24.7	
1-2	2.8	32.5	9.8	.0	.0	.0	44.1	
3-4	.1	9.1	11.5	.2	.0	.0	20.9	
5-6	.0	.7	5.1	.3	.0	.0	6.1	
7	.0	.3	1.4	.2	.0	.0	1.9	
8-9	.0	.3	.0	.0	.0	.0	.3	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	14.6	56.8	28.0	.6	.0	.0	100.0	673

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	13.8	34.5	15.3	3.8	1.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	785
6-7	.1	1.6	4.2	3.7	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	118
8-9	.0	.4	.8	.8	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	31
10-11	.0	.5	.4	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15
12-13	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
13-14	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
INDEX	13.0	1.9	1.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	197
TOTAL																					1148
PCT	26.8	38.9	22.2	8.8	2.0	1.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1908-1973  
(OVER-ALL) 1854-1973

AREA 0005 BANGKA ISLAND NORTHWEST  
.75 105.0E

TABLE 20

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TEMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.1	.1	.0	.0	.0	.1	.0	.0	.0	3	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.0	3	.0
89/90	.0	.0	.1	.2	.3	1.2	.5	.1	.0	.3	.0	.1	26	.2
87/88	.1	.4	2.4	7.3	6.6	5.1	2.7	.4	.5	7.1	.9	1.0	264	2.5
85/86	2.1	2.8	9.0	26.9	38.9	22.5	13.0	9.3	11.4	14.9	16.3	5.7	1538	14.7
83/84	12.9	20.4	35.5	42.7	41.2	47.7	48.1	40.6	43.0	45.1	45.9	27.5	3930	37.6
81/82	53.7	48.1	42.3	19.2	11.9	19.7	32.3	44.2	38.8	32.2	32.5	47.9	3641	34.8
79/80	26.9	24.3	8.7	2.3	.6	1.7	3.1	3.9	4.9	4.0	3.4	15.4	853	8.2
77/78	3.8	5.2	1.3	1.1	.2	1.3	.7	.8	1.1	.8	.8	2.1	166	1.6
75/76	.9	.4	.7	.1	.1	.5	.2	.1	.2	.5	.0	.1	32	.3
73/74	.0	.3	.0	.1	.0	.1	.1	.2	.0	.0	.0	.0	7	.1
71/72	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	2	.0
69/70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
67/68	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
65/66	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
63/64	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
61/62	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
59/60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
57/58	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
55/56	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
53/54	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
51/52	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
49/50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	984	783	1063	905	929	918	815	831	845	870	852	670	10465	100.0
MEAN	81.1	81.3	82.5	83.8	84.2	83.6	83.0	82.6	82.7	83.0	83.0	81.9	82.7	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

HR	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1011	1009	1010	1008	1010	1011	1011	1009	1010	386
FEB	1011	1011	1010	1009	1010	1011	1011	1010	1010	303
MAR	1010	1009	1010	1008	1009	1010	1010	1009	1010	438
APR	1010	1011	1009	1008	1009	1010	1010	1009	1009	377
MAY	1010	1011	1009	1008	1009	1009	1009	1009	1009	334
JUN	1010	1010	1009	1008	1009	1011	1010	1009	1009	368
JUL	1010	1010	1010	1008	1009	1010	1010	1009	1010	319
AUG	1011	1009	1010	1008	1009	1010	1010	1009	1010	299
SEP	1011	1011	1010	1008	1009	1011	1010	1009	1010	316
OCT	1011	1010	1010	1009	1010	1010	1010	1010	1010	360
NOV	1011	1011	1010	1009	1010	1011	1010	1009	1010	314
DEC	1010	1012	1010	1008	1009	1010	1010	1009	1010	298
ANN	1011	1010	1010	1008	1009	1010	1010	1009	1010	4114
OBS	703	44	574	430	780	87	684	412		

PERCENTILES

MC	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	1004	1006	1007	1009	1010	1011	1013	1014	1015
FEB	1005	1006	1007	1009	1010	1011	1013	1013	1014
MAR	1005	1005	1006	1008	1010	1011	1012	1013	1014
APR	1005	1005	1006	1008	1009	1010	1013	1014	1015
MAY	1004	1005	1006	1008	1009	1010	1012	1013	1014
JUN	1004	1005	1006	1008	1009	1010	1012	1013	1015
JUL	1005	1006	1006	1008	1009	1011	1012	1014	1015
AUG	1004	1006	1007	1009	1010	1011	1012	1014	1015
SEP	1004	1006	1007	1009	1010	1011	1012	1013	1014
OCT	1006	1006	1007	1009	1010	1011	1013	1013	1014
NOV	1005	1006	1007	1009	1010	1011	1013	1013	1014
DEC	1004	1005	1007	1008	1009	1011	1013	1013	1014

PERIOD: (PRIMARY) 1924-1973  
(OVER-ALL) 1858-1973

JANUARY

AREA 0006 NATUNA ISLAND  
3.9N 107.1E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO. SIG
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OBS TIME	PCPN PAST HOUR	THDR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	
N	1.1	1.8	2.3	.0	.0	.0	.0	7.2	3.4	.2	.1	.0	.6	.0	88.4
NE	3.3	1.6	1.1	.0	.0	.0	.0	5.9	2.9	.3	.2	.0	.3	.0	90.3
E	3.6	.6	1.1	.0	.0	.0	.0	5.3	6.9	.0	.6	.0	.0	.0	87.2
SE	10.2	2.0	.0	.0	.0	.0	.0	12.2	10.2	.0	.0	.0	.0	.0	77.6
S	8.3	8.3	11.1	.0	.0	.0	.0	27.8	.0	.0	.0	.0	.0	.0	72.2
SW	.0	.0	.0	.0	.0	.0	.0	.0	13.8	.0	.0	.0	.0	.0	86.2
W	14.6	4.2	.0	.0	.0	.0	.0	18.4	.0	.0	.0	.0	.0	.0	81.3
NW	8.0	2.3	6.1	.0	.0	.0	.0	16.3	1.9	.0	.0	.0	.4	.0	81.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	4.8	.0	.0	.0	.0	.0	4.8	.0	.0	.0	.0	.0	.0	90.5
TOT PCT	3.6	1.7	1.7	.0	.0	.0	.0	6.9	3.3	.3	.2	.0	.4	.0	88.9
TOT OBS:	1944														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO. SIG
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OBS TIME	PCPN PAST HOUR	THDR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	
00003	3.1	2.6	1.7	.0	.0	.0	.0	7.4	4.1	.5	.0	.0	.5	.0	87.6
06009	3.5	1.8	1.3	.0	.0	.0	.0	6.6	2.4	.0	.0	.0	.9	.0	90.0
12015	2.8	1.7	1.7	.0	.0	.0	.0	6.0	3.7	.3	.0	.0	.0	.0	90.1
18021	4.9	.9	2.1	.0	.0	.0	.0	7.9	3.0	.3	.9	.0	.0	.0	87.8
TOT PCT	3.5	1.8	1.7	.0	.0	.0	.0	7.0	3.3	.3	.2	.0	.4	.0	88.9
TOT OBS:	1952														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	1.0	11.7	14.2	2.0	.1	.0		29.0	12.2	28.8	33.5	25.9	35.5	28.9	23.4	29.9	27.8	
NE	1.7	22.2	28.8	3.5	.1	.0		54.1	12.2	54.9	55.3	57.3	49.8	55.2	53.7	51.8	48.0	
E	.5	4.1	2.1	.1	.0	.0		6.8	9.7	7.1	6.3	6.7	6.5	5.7	7.4	6.1	9.0	
SE	.8	.8	.3	.0	.0	.0		1.0	8.4	1.2	.8	1.5	1.1	.6	.0	.9	1.2	
S	.3	.4	.1	.0	.0	.0		.8	6.9	.5	.0	1.4	1.2	.8	.0	.8	.3	
SW	.1	.4	.1	.0	.0	.0		.5	7.0	.7	.0	.4	.3	.7	.5	.9	.5	
W	.2	.7	.1	.1	.0	.0		1.0	9.4	1.2	.4	.9	.3	.8	.4	1.0	1.7	
NW	.5	2.5	1.7	.3	.1	.0		5.0	10.9	4.0	2.8	4.4	4.1	4.8	.7	6.2	8.6	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	1.8							1.9	.3	1.5	.8	1.6	1.2	2.7	.0	2.4	3.0	
TOT OBS	164	1185	1255	164	7	0	2775	1.9	11.6	486	123	626	325	450	118	379	298	
TOT PCT	5.9	42.7	44.2	5.9	.3	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	4.2	19.0	5.3	.5	.0		29.0	12.2	29.8	29.2	27.8	29.0		
NE	7.5	33.2	10.8	.6	.0		54.1	12.2	55.0	54.7	56.9	51.1		
E	1.8	4.3	.6	.0	.0		6.8	9.7	7.0	6.7	6.0	.4		
SE	.4	.5	.1	.0	.0		1.0	8.4	1.1	1.3	.4	1.0		
S	.4	.4	.0	.0	.0		.8	6.9	.4	1.3	.6	.6		
SW	.3	.2	.0	.0	.0		.5	7.0	.6	.3	.6	.7		
W	.4	.5	.1	.1	.0		1.0	9.4	1.0	.7	.9	1.2		
NW	1.4	2.5	.9	.1	.0		5.0	10.9	3.8	4.3	4.6	7.2		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	1.8						1.9	.3	1.4	1.5	2.2	2.7		
TOT OBS	303	1740	494	38	0	2775		11.6	589	591	558	677		
TOT PCT	18.1	62.7	17.8	1.4	.0		100.0		100.0	100.0	100.0	100.0		



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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
0000	1.4	3.6	43.8	44.7	6.5	.0	.0	11.8	100.0	589
0600	1.5	3.3	41.3	47.5	5.9	.0	.0	11.9	100.0	951
1200	2.2	4.8	40.7	45.7	6.6	.0	.0	11.7	100.0	558
1800	2.7	5.2	45.1	42.1	4.9	.1	.0	11.0	100.0	677
TOT	92	114	1183	1255	164	7	0	11.6		2775
PCT	1.9	4.1	42.6	45.2	5.9	.3	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.5	4.4	12.1	7.8		5.8
NE	7.7	11.1	26.1	14.1		5.5
E	.8	1.4	2.4	1.8		5.4
SE	.2	.2	.8	.4		5.4
S	.0	.1	.2	.5		7.1
SW	.1	.1	.1	.2		5.4
W	.0	.1	.2	.1		6.5
NW	.3	.7	1.3	1.2		5.8
VAR	.0	.0	.0	.0		.0
CALM	.2	.6	.6	.3		4.9
TOT OBS	122	193	445	273	1033	5.6
TOT PCT	11.8	18.7	43.1	26.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NM >4/8  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NM <5/8 ANY HGT	TOTAL OBS
	149	290	590	999	1999	3499	4999	6499	7999			
N	.1	.1	.4	3.1	3.7	2.4	.4	.3	.1	.0	16.2	
NE	.4	.1	1.3	4.0	10.1	4.7	1.1	.5	.4	.2	36.1	
E	.0	.0	.1	1.0	1.2	.2	.0	.1	.0	.0	3.9	
SE	.0	.0	.1	.2	.1	.0	.0	.0	.0	.0	.4	
S	.2	.0	.0	.1	.1	.1	.0	.0	.0	.0	.3	
SW	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.4	
W	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
NW	.0	.0	.0	.8	.7	.2	.1	.0	.0	.0	1.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.4	.0	.0	.1	.0	.0	.0	1.2	
TOT OBS	122	193	445	999	1999	3499	4999	6499	7999	1033		1033
TOT PCT	.7	.2	1.8	9.6	16.1	7.7	1.8	1.0	.5	.2	60.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NM) = OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.7	.7	.7	.7	.7	.7	.7	.7
= OR >5000	1.4	1.5	1.6	1.6	1.6	1.6	1.6	1.6
= OR >3500	2.7	3.2	3.5	3.5	3.5	3.5	3.5	3.5
= OR >2000	8.1	10.4	11.3	11.3	11.3	11.3	11.3	11.3
= OR >1000	17.7	25.3	27.1	27.2	27.3	27.3	27.3	27.3
= OR >600	22.6	33.5	36.5	36.7	36.7	36.8	36.8	36.8
= OR >300	29.1	35.1	38.1	38.5	38.5	38.7	38.7	38.7
= OR >150	29.2	35.2	38.2	38.7	38.7	38.9	38.9	38.9
= OR >0	33.3	35.4	38.7	39.2	39.3	39.5	39.5	39.5
TOTAL	242	367	401	407	408	410	410	410

TOTAL NUMBER OF OBS: 1037

PCT FREQ NM <5/8: 60.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
2.0	6.6	17.4	19.3	14.8	9.3	9.9	7.1	13.0	1091

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1/2<1	PCP	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	TOT %	.1	.2	.0	.0	.0	.0	.0	.1	.0	.0	.4	
1<2	PCP	.2	.1	.0	*	*	.0	.0	.1	.0	.0	.4	
	NO PCP	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.2	.2	.0	.1	*	.0	.0	.1	.0	.0	.6	
2<5	PCP	.5	.5	.2	*	*	.0	.1	.3	.0	.0	1.6	
	NO PCP	.9	.8	.2	.1	.0	.0	.2	.0	.0	.0	2.2	
	TOT %	1.4	1.3	.4	.1	*	.0	.1	.5	.0	.0	3.8	
5<10	PCP	.4	1.3	*	.0	.0	.0	*	*	.0	.1	1.9	
	NO PCP	5.8	12.0	1.0	.2	*	.1	.1	1.1	.0	.1	20.4	
	TOT %	6.1	13.3	1.1	.2	*	.1	.2	1.1	.0	.2	22.3	
10+	PCP	.8	1.4	.1	.1	.1	.0	.3	.0	.0	.0	2.7	
	NO PCP	19.3	41.4	4.3	.4	.4	.4	2.3	.0	.0	1.2	70.1	
	TOT %	20.1	42.8	4.4	.5	.5	.4	2.5	.0	.0	1.2	72.8	
TOT OBS													1544
TOT PCT													28.0 57.9 5.8 .5 .6 .9 .8 4.3 .0 1.4 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	
	11-21	.0	*	*	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	*	*	*	.0	.0	.0	.0	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	*	.0	.0	.0	.0	.0	*	.0	.0	.2	
	11-21	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	*	
	TOT %	.2	.2	.0	.0	.0	.0	.0	*	.0	.0	.4	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	*	*	*	.0	*	.0	*	.0	.0	.3	
	11-21	.1	.2	*	*	*	.0	.0	.0	.0	.0	.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.3	*	.1	*	*	.0	*	.0	.0	.7	
2<5	0-3	.0	*	.0	.0	.0	.0	.0	*	.0	.0	.1	
	4-10	.7	.4	.2	.1	*	*	*	.1	.0	.0	1.6	
	11-21	.9	1.2	.1	*	*	*	*	.2	.0	.0	2.5	
	22+	.2	.1	.0	.0	.0	.0	*	.1	.0	.0	.5	
	TOT %	1.9	1.7	.4	.1	.1	.0	.1	.4	.0	.0	4.7	
5<10	0-3	.1	.2	.0	.0	.0	.0	*	.0	.0	.1	.4	
	4-10	1.8	3.2	.0	.1	*	.1	.5	.0	.0	.0	6.1	
	11-21	3.6	6.9	.4	.1	.0	.0	.3	.0	.0	.0	11.3	
	22+	.7	1.4	.0	.0	.0	.0	.2	.0	.0	.0	2.4	
	TOT %	5.9	11.7	1.0	.2	*	.1	.2	.9	.0	.1	20.2	
10+	0-3	.6	1.2	.3	.0	.1	.1	.5	.0	1.3	.0	4.1	
	4-10	9.1	19.0	3.3	.5	.3	.2	.3	1.4	.0	.0	34.1	
	11-21	9.6	20.6	1.6	.1	.0	*	*	.8	.0	.0	32.7	
	22+	.9	1.9	*	.0	.0	.0	.1	.0	.0	.0	3.0	
	TOT %	20.2	42.6	5.2	.6	.4	.3	.4	2.7	.0	1.4	73.9	
TOT OBS													2083
TOT PCT													28.4 56.6 6.6 .9 .6 .5 .7 4.2 .0 1.5 100.0

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET-NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	1.0	.3	2.6	10.8	16.0	7.8	2.6	1.3	.0	.0	42.5	57.5	308
06009	.3	.0	.6	11.0	16.2	6.1	1.5	.9	.3	.6	37.6	62.4	327
12015	.4	.4	2.5	6.8	15.6	8.0	1.7	.4	1.7	.0	37.6	62.4	237
18021	1.0	.0	1.5	7.1	14.2	9.1	1.0	1.0	.0	.0	35.0	65.0	197
TOT	7	2	19	99	167	81	19	10	5	2	411	656	1067
PCT	.7	.2	1.8	9.3	15.7	7.6	1.8	.8	.3	.2	38.5	61.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.4	.8	.2	4.8	18.0	75.8	499
06009	.0	.3	.5	3.8	18.6	76.8	651
12015	.0	.4	.4	5.9	24.1	69.2	461
18021	.2	.2	1.7	4.6	20.6	72.7	480
TOT	3	9	14	98	421	1546	2091
PCT	.1	.4	.7	4.7	20.1	73.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET-NM >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	1.0	4.3	17.3	26.6	56.1	301
06009	.3	.9	14.2	24.9	60.9	317
12015	.4	3.5	14.2	25.7	60.2	226
18021	1.0	2.6	14.0	23.3	62.7	193
TOT	7	29	156	262	619	1037
PCT	.7	2.8	15.0	25.3	59.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.2	.2	.2	.0	6	.0
85/89	.0	.0	.0	.0	1.0	2.6	.5	.1	39	4.2
80/84	.0	.0	.0	.0	1.4	14.4	30.2	6.0	482	52.1
75/79	.0	.0	.0	.0	.1	5.3	23.9	13.1	392	42.3
70/74	.0	.0	.0	.0	.0	.0	.3	.4	7	.8
TOTAL	0	0	0	0	28	208	511	182	926	100.0
PCT	.0	.0	.0	.0	2.7	22.5	55.2	19.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.2	.4	.0	.0	.0	.1	.0	.0	.0	.0
85/89	.9	2.5	.4	.0	.0	.0	.0	.2	.0	.0
80/84	11.5	32.2	4.2	.4	.5	.5	.4	1.5	.0	1.0
75/79	13.4	23.2	2.4	.3	.2	.1	.3	2.0	.0	.4
70/74	.2	.2	.0	.0	.0	.0	.1	.2	.0	.0
TOTAL	26.2	58.7	7.0	.5	.8	.6	.8	3.9	.0	1.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	91	86	82	79	75	73	72	79.4	589
06009	91	89	86	81	77	74	72	81.0	938
12015	88	85	82	79	76	73	71	79.5	558
18021	84	82	81	79	75	73	72	78.6	672
TOT	91	87	84	80	76	73	71	79.8	2757

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	1.2	14.3	62.9	21.5	85	251
06009	.0	.0	6.2	37.0	42.2	14.5	82	289
12015	.0	.0	1.4	21.5	59.3	17.8	84	214
18021	.0	.0	.6	11.8	60.1	27.5	86	178
TOT	0	0	25	210	514	183	84	932

PERIOD: (PRIMARY) 1924-1973  
(OVER-ALL) 1858-1973

JANUARY

AREA 0006 NATUNA ISLAND  
3.5N 107.1E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	W FOG
14/16	.0	.0	.0	.0	.0	.1	1	.0	.1
11/13	.0	.0	.0	.0	.3	.1	7	.0	.5
9/10	.0	.0	.1	.1	.1	.1	6	.0	.4
7/8	.0	.0	.2	.3	.4	.3	17	.0	1.2
6	.0	.0	.0	.1	.4	.1	9	.0	.8
5	.0	.0	.2	1.0	.5	.1	28	.0	2.0
4	.0	.0	1.2	3.1	1.1	.0	78	.0	5.4
3	.0	.0	.4	1.5	.3	.0	34	.0	2.4
2	.1	.2	3.3	7.0	.3	.0	156	.0	10.9
1	.0	.0	3.3	3.7	.1	.0	102	.0	7.1
0	.0	.6	14.6	11.8	.1	.0	389	.0	27.1
-1	.0	.6	7.1	2.8	.0	.0	150	.1	10.3
-2	.1	1.3	11.8	3.9	.0	.0	245	.1	17.0
-3	.0	.6	2.5	.9	.0	.0	71	.0	4.9
-4	.0	1.3	4.1	.4	.0	.0	85	.0	5.9
-5	.0	.9	1.0	.1	.0	.0	28	.0	2.0
-6	.0	.3	.4	.0	.0	.0	11	.0	.8
-7/-8	.2	.4	.3	.1	.0	.0	14	.0	1.0
-9/-10	.0	.1	.1	.0	.0	.0	3	.0	.2
-11/-13	.0	.1	.0	.0	.0	.0	1	.0	.1
TOTAL	5		740		58		1435	3	1432
PCT	.3	6.4	51.6	36.8	4.0	.8	100.0	.2	99.8

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	NE	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.1	.2	.0	.0	.0	1.2	.3	1.9	.8	.0	.0	.0	.0	3.0
1-2	.2	5.2	2.6	.0	.0	.0	8.0	.2	8.9	6.6	.0	.0	.0	.0	15.8
3-4	.0	3.2	7.0	.5	.0	.0	10.7	.9	5.0	11.9	.2	.0	.0	.0	18.1
5-6	.0	.6	2.8	.0	.0	.0	3.4	.2	1.8	9.7	.9	.0	.0	.0	12.7
7	.0	.6	.8	.6	.0	.0	2.0	.0	.6	2.9	.1	.0	.0	.0	3.6
8-9	.0	.0	.7	.7	.0	.0	1.4	.0	.0	.5	.5	.0	.0	.0	1.0
10-11	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.5	.0	.0	.0	.5
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.3	.0	.0	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	10.7	14.2	2.1	.0	.0	27.1	1.7	18.3	32.3	2.6	.2	.0	.0	55.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	SE	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.4	.0	.0	.0	.0	.8	.0	.2	.0	.0	.0	.0	.0	.2
1-2	.2	3.5	1.4	.0	.0	.0	5.2	.0	.5	.2	.0	.0	.0	.0	.8
3-4	.0	.5	1.4	.0	.0	.0	1.9	.0	.0	.3	.0	.0	.0	.0	.3
5-6	.0	.4	.8	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.7	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	4.7	4.3	.0	.0	.0	9.7	.0	.8	.5	.0	.0	.0	.0	1.3

PERIOD: (OVER-ALL) 1963-1973

JANUARY

AREA 0006 NATUNA ISLAND  
3.5N 107.1E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.5	.5
3-4	.0	.0	.2	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.2	.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.2	.2	.0	.0	.0	.4	.0	.7	.0	.0	.0	.0	.7	.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.5	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.3	.1	.5	.0	.0	.0	.7	.7
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.3	.5	.0	.0	.0	.8	.8
5-6	.0	.0	.2	.0	.0	.0	.2	.0	.3	.7	.0	.0	.0	.9	.9
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.2	.0	.4	.4
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.7	.2	.0	.0	.0	.9	.3	.7	1.3	.3	.2	.0	3.0	98.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.1	4.3	.0	.0	.0	.0	7.3	
1-2	.9	19.1	11.1	.0	.0	.0	31.2	
3-4	1.2	9.2	21.2	.7	.0	.0	32.4	
5-6	.2	3.1	14.1	.9	.0	.0	18.4	
7	.0	1.2	6.5	.7	.2	.0	8.6	
8-9	.0	.0	1.2	1.4	.0	.0	2.6	
10-11	.0	.0	.0	.7	.0	.0	.7	
12	.0	.0	.0	.0	.2	.0	.2	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.5	.0	.0	.5	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.3	36.9	53.2	5.0	.5	.0	100.0	423

PERIOD: (OVER-ALL) 1969-1973

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<1	3.1	13.6	16.7	9.3	1.3	.6	.1	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	376	3
1-2	.0	3.0	8.7	11.1	6.0	2.4	1.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	278	3
3-4	.0	.2	1.2	2.9	3.5	1.8	.8	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	87	6
5-6	.0	.1	.1	.8	.7	.5	.2	.4	.1	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	28	9
7-9	.0	.0	.1	.1	.1	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	2
10-11	.0	.0	.0	.0	.2	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	10
12-13	.0	.0	.0	.0	.4	.4	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	37	3
14-15	1.9	1.2	1.8	1.1	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	631	4
TOTAL	42	151	236	210	102	47	19	14	2	3	3	0	0	0	0	0	0	0	0	100.0	
PCT	9.1	18.2	28.6	25.3	12.8	9.7	2.3	1.7	.2	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1923-1973  
(OVER-ALL) 1856-1973

FEBRUARY

AREA 0006 NATUNA ISLAND  
3.5N 107.1E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	1.4	3.1	1.3	.0	.0	.0	.0	5.7	3.2	.0	.0	.0	.0	.2	90.8
NE	1.6	2.2	.5	.0	.0	.0	.0	4.2	2.8	.2	.1	.0	.1	.0	92.6
E	2.3	2.5	1.1	.0	.0	.0	.0	6.2	7.3	.9	.0	.0	.0	.0	90.8
SE	5.4	2.7	.0	.0	.0	.0	.0	8.1	.0	.0	.0	.0	.0	.0	91.9
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.8	.0	86.2
SW	10.3	.0	.0	.0	.0	.0	.0	10.3	.0	.0	.0	.0	.0	.0	89.7
W	.0	.0	17.6	.0	.0	.0	.0	17.6	.0	.0	.0	.0	.0	.0	82.4
NW	.0	4.8	3.6	.0	.0	.0	.0	8.2	9.5	.0	.0	.0	.0	.0	82.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.2	.0	.0	.0	.0	.0	.0	3.2	3.2	.0	.0	.0	.0	.0	93.5
TOT PCT	1.7	2.3	.8	.0	.0	.0	.0	4.8	2.9	.2	.1	.0	.1	.1	91.9
TOT OBS:	1491														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	2.0	2.7	1.0	.0	.0	.0	.0	5.5	3.2	.0	.0	.0	.2	.0	91.0
06009	1.2	2.5	1.0	.0	.0	.0	.0	4.7	3.0	.0	.2	.0	.0	.2	91.8
12015	1.4	2.2	.3	.0	.0	.0	.0	3.8	3.0	.3	.0	.0	.0	.0	91.1
18021	2.4	1.8	.9	.0	.0	.0	.0	5.1	2.1	.6	.0	.0	.3	.0	92.0
TOT PCT	1.7	2.3	.8	.0	.0	.0	.0	4.8	2.9	.2	.1	.0	.1	.1	91.9
TOT OBS:	1303														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)						TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+				00	03	06	09	12	15	18	21
N	1.2	12.4	8.6	.4	.0	.0	22.6	10.2	20.6	15.8	20.6	26.3	25.5	23.5	22.1	23.8	
NE	2.3	30.5	26.3	1.7	.0	.0	60.8	10.9	64.5	61.8	65.8	57.6	58.9	63.4	59.3	53.0	
E	1.1	5.2	1.6	.1	.0	.0	8.1	8.0	7.9	8.7	6.7	6.5	6.9	10.1	9.6	11.5	
SE	.3	.9	.2	.0	.0	.0	1.4	6.7	.9	5.8	1.3	1.8	1.2	.0	.9	1.2	
S	.2	.6	.0	.0	.0	.0	.8	6.0	.7	1.0	.6	1.0	.0	.0	1.1	.5	
SW	.2	.5	.1	.0	.0	.0	.8	7.5	.6	2.1	.5	.9	.8	.0	1.0	1.2	
W	.1	.4	.1	.0	.0	.0	.5	5.5	.6	.0	.5	1.2	.1	.0	.5	.7	
NW	.2	1.1	.4	.0	.0	.0	1.8	8.7	2.0	2.4	1.5	2.5	1.5	1.0	1.3	2.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	3.2						3.2	.0	1.9	2.7	2.2	2.6	4.1	2.0	4.2	5.9	
TOT OBS	247	1432	1041	62	0	0	2782	10.0	468	146	548	341	484	101	407	287	
TOT PCT	8.9	51.5	37.4	2.2	.0	.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	06	12	18
N	5.4	14.5	2.6	.0	.0	22.6	10.2	19.0	22.8	25.1	22.8
NE	12.1	40.0	8.5	.2	.0	60.8	10.9	63.8	62.7	59.7	56.7
E	3.6	4.1	.4	.0	.0	8.1	8.0	8.1	6.6	7.4	10.4
SE	.9	.4	.1	.0	.0	1.4	6.7	2.0	1.5	1.0	1.0
S	.5	.4	.0	.0	.0	.8	6.0	.7	.8	.8	.9
SW	.4	.3	.1	.0	.0	.8	7.5	1.0	.6	.6	1.1
W	.4	.1	.0	.0	.0	.5	5.5	.4	.7	.1	.6
NW	.7	.9	.1	.0	.0	1.8	8.7	2.1	1.9	1.5	1.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.2				3.2	.0	.0	2.1	2.4	3.8	4.9
TOT OBS	757	1690	328	7	2782	10.0		614	889	585	604
TOT PCT	27.2	60.7	11.8	.3	100.0			100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00Z03	2.1	6.0	52.9	37.1	1.8	.0	.0	9.8	100.0	614
06Z09	2.4	5.3	49.6	40.5	2.2	.0	.0	10.3	100.0	889
12Z15	3.8	5.5	49.7	38.1	2.9	.0	.0	10.2	100.0	585
18Z21	4.9	5.9	54.0	33.1	2.0	.0	.0	9.6	100.0	694
TOT	90	157	1432	1041	62	0	0	10.0		2782
PCT	3.2	5.6	51.5	37.4	2.2	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL OBS	MEAN CLOUD COVER
N	3.4	3.1	9.3	4.5		5.4
NE	9.4	15.0	30.9	13.2		5.7
E	1.2	1.8	1.6	1.6		4.9
SE	.1	.2	.1	*		3.7
S	.0	.2	.2	.1		5.1
SW	.1	.0	.3	.1		5.2
W	.1	.1	.0	.1		4.3
NW	.3	.3	.5	.2		4.7
VAR	.0	.0	.0	.0		.0
CALM	.4	.4	.9	.2		4.5
TOT OBS	140	196	408	187	931	5.2
TOT PCT	15.0	21.1	43.8	20.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.2	.2	2.3	2.4	1.7	.5	.0	.0	.1	12.7	
NE	.1	.2	.8	5.2	9.9	5.4	1.3	.1	.0	.1	45.4	
E	.0	.1	.0	.6	.7	.2	.0	.1	.0	.0	4.7	
SE	.0	.0	.0	.0	*	.0	.0	.0	.0	.0	.5	
S	.0	.0	.0	.1	.0	.1	.1	.0	.0	.0	.2	
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	
W	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
NW	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.2	.2	.0	.0	.1	.0	.0	1.4	
TOT OBS	2	5	9	80	123	71	18	3	0	2	618	931
TOT PCT	.2	.5	1.0	8.6	13.2	7.6	1.9	.3	.0	.2	66.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
> OR = 6500	.2	.2	.2	.2	.2	.2	.2	.2
> OR = 5000	.5	.5	.5	.5	.5	.5	.5	.5
> OR = 3500	1.8	2.4	2.5	2.5	2.5	2.5	2.5	2.5
> OR = 2000	6.8	9.9	10.2	10.2	10.2	10.2	10.2	10.2
> OR = 1000	14.8	22.8	23.3	23.4	23.4	23.4	23.4	23.4
> OR = 600	19.6	30.8	31.8	31.9	31.9	31.9	32.0	32.0
> OR = 300	20.1	31.7	32.6	32.8	32.8	32.8	32.9	32.9
> OR = 150	20.3	32.0	32.9	33.4	33.4	33.4	33.5	33.5
> OR = 0	20.4	32.2	33.2	33.6	33.6	33.6	33.7	33.7
TOTAL	191	201	310	314	314	314	315	315

TOTAL NUMBER OF OBS: 935

PCT FREQ NH &lt;5/8: 66.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	9	TOTAL OBS
	3.4	11.8	20.6	19.6	14.0	8.9	8.9	6.1	8.5	.2	991

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.1	
1/2<1	PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1<2	PCP	.0	.3	.0	.1	.0	.0	.0	.0	.0	.0	.4	
	NO PCP	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.1	.3	.0	.1	.0	.0	.0	.0	.0	.0	.5	
2<3	PCP	.2	.3	.1	.0	.0	.0	.0	.0	.0	.0	.5	
	NO PCP	.6	.5	.1	.1	.1	.0	.1	.0	.0	.0	1.3	
	TOT %	.8	.8	.1	.1	.1	.0	.1	.0	.0	.0	1.9	
5<10	PCP	.4	1.2	.2	.0	.0	.1	.1	.0	.0	.0	1.9	
	NO PCP	9.2	13.2	1.0	.1	.1	.1	.1	.1	.0	.1	20.0	
	TOT %	9.6	14.4	1.2	.1	.1	.2	.1	.1	.0	.1	21.9	
10+	PCP	.6	.9	.2	.0	.0	.0	.1	.0	.0	.1	1.8	
	NO PCP	13.7	49.2	3.8	1.0	.4	.3	.2	1.1	.0	1.9	73.7	
	TOT %	14.3	50.2	4.0	1.0	.4	.3	.2	1.2	.0	2.0	75.5	
TOT OBS													1489
TOT PCT													20.7 65.8 7.3 1.2 .3 .7 .3 1.4 .0 2.1 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.3	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.3	.0	.0	.0	.1	.0	.0	.0	.0	.5	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1<2	0-3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	11-21	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.5	
2<3	0-3	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.3	
	4-10	.3	.4	.1	.0	.0	.0	.0	.0	.0	.0	.8	
	11-21	.5	1.0	.1	.0	.0	.0	.0	.0	.0	.0	1.6	
	22+	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.9	1.5	.3	.0	.0	.0	.0	.0	.0	.0	2.9	
5<10	0-3	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.4	
	4-10	2.1	4.3	.8	.1	.0	.1	.1	.1	.0	.0	7.7	
	11-21	2.6	6.6	.3	.1	.0	.0	.0	.0	.0	.0	9.7	
	22+	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	
	TOT %	4.9	11.9	1.1	.2	.0	.2	.1	.1	.0	.0	18.6	
10+	0-3	1.0	1.5	1.0	.2	.1	.2	.1	.2	.0	2.8	7.1	
	4-10	9.6	28.0	4.3	.8	.3	.4	.2	.8	.0	.0	42.4	
	11-21	5.0	20.4	.9	.1	.0	.0	.0	.3	.0	.0	26.7	
	22+	.1	.8	.1	.0	.0	.0	.0	.0	.0	.0	1.1	
	TOT %	15.7	48.7	6.3	1.1	.4	.6	.4	1.3	.0	2.8	77.3	
TOT OBS													2056
TOT PCT													21.7 62.8 7.8 1.4 .5 .9 .5 .3 .0 2.9 100.0



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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HOUR (GMT)	000 149	190 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH < 5/8 ANY HGT	TOTAL OBS
00003	.4	.4	.4	11.7	12.9	10.2	3.1	.0	.0	.0	39.1	60.9	256
06009	.4	.8	.8	7.3	15.1	7.7	.8	.0	.0	.4	33.2	66.8	259
12015	.0	.8	.8	8.0	15.1	3.8	1.7	.4	.0	.0	30.7	69.3	238
18021	.0	.0	1.9	5.7	7.6	8.1	1.9	.9	.0	.5	26.5	73.5	211
TOT	2	3	9	80	124	72	18	3	0	2	315	649	964
PCT	.2	.3	.9	8.3	12.9	7.3	1.9	.3	.0	.2	32.7	67.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	1.4	.0	.6	2.6	17.2	78.3	906
06009	.3	.3	.3	2.0	17.4	79.3	908
12015	.0	.2	.7	3.7	22.6	72.8	480
18021	.2	.0	.6	3.6	17.4	78.1	494
TOT	11	3	12	60	383	1399	2068
PCT	.5	.1	.6	2.9	18.5	77.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET, NH > 4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL OBS
00003	.4	1.6	13.7	26.9	59.4	249
06009	.4	2.4	10.7	23.7	65.6	253
12015	.0	1.2	11.8	21.1	67.1	228
18021	.0	2.0	10.2	18.5	71.2	205
TOT	2	18	109	213	613	935
PCT	.2	1.9	11.7	22.8	65.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.4	.2	.2	.1	.0	8	1.0
85/89	.0	.0	.0	.1	1.0	3.3	.4	.0	39	4.8
80/84	.0	.0	.0	.0	1.1	19.1	27.6	7.1	448	55.0
75/79	.0	.0	.0	.0	.0	4.0	23.7	11.2	317	38.9
70/74	.0	.0	.0	.0	.0	.0	.1	.2	3	.4
TOTAL	0	0	0	4	19	218	423	131	815	100.0
PCT	.0	.0	.0	.5	2.3	26.7	51.9	18.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.7	.0	.0	.0	.0	.0	.0	.0	.1
85/89	.7	1.7	.2	.0	.1	.0	.0	.0	.0	.1
80/84	9.4	39.4	3.1	.3	.1	.3	.1	.5	.0	1.7
75/79	8.4	25.3	3.2	.2	.1	.3	.2	.7	.0	.5
70/74	.1	.1	.0	.0	.1	.0	.0	.0	.0	.0
TOTAL	18.7	69.4	6.5	.5	.4	.6	.3	1.2	.0	2.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	87	84	80	77	75	73	80.0	602
06009	93	90	86	81	77	74	70	81.3	873
12015	88	86	83	80	77	75	68	80.0	582
18021	86	83	82	79	76	73	72	79.1	692
TOT	93	88	84	80	77	75	68	80.2	2749

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	.5	19.9	55.5	24.2	85		211
06009	.0	1.8	9.8	44.8	26.8	10.8	80	223		
12015	.0	.0	1.9	21.4	57.3	19.4	84	206		
18021	.0	.0	.6	17.8	61.1	20.6	85	180		
TOT	0	4	19	218	427	132	63	820		

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	WQ FOG
11/13	.0	.0	.0	.1	.0	.0	.1	.1	4	.0	.3
9/10	.0	.0	.0	.1	.1	.1	.4	.0	11	.0	.8
7/8	.0	.0	.0	.1	.1	1.1	.2	.0	21	.0	1.5
6	.0	.0	.0	.0	.1	.4	.1	.0	9	.0	.7
5	.0	.0	.0	.3	1.2	.6	.0	.0	29	.0	2.1
4	.0	.0	.1	.7	3.2	1.1	.0	.0	71	.0	5.2
3	.0	.0	.0	.4	1.5	.1	.0	.0	27	.0	2.0
2	.0	.0	.2	2.4	8.7	.4	.0	.0	160	.0	11.7
1	.0	.0	.0	4.0	4.3	.1	.0	.0	113	.1	8.2
0	.0	.1	.4	13.9	19.8	.1	.1	.0	414	.0	30.4
-1	.0	.0	.1	6.7	2.9	.0	.0	.0	132	.0	9.7
-2	.0	.1	.8	10.1	4.9	.0	.0	.0	211	.0	15.3
-3	.0	.0	.1	2.9	.8	.0	.0	.0	52	.0	3.8
-4	.0	.0	1.4	3.0	.4	.0	.0	.0	66	.0	4.8
-5	.0	.0	.4	1.0	.3	.1	.0	.0	25	.0	1.8
-6	.0	.0	.1	.4	.0	.0	.0	.0	7	.0	.5
-7/-8	.0	.0	.1	.2	.0	.0	.0	.0	5	.0	.4
-9/-10	.0	.0	.2	.1	.0	.0	.0	.0	5	.0	.4
-14/-16	.1	.0	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	1	2	56	633	802	56	12	1	1363	1	1362
PCT	.1	.1	4.1	40.4	44.7	4.1	.9	.1	100.0	.1	99.9

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.1	.0	.0	.0	.0	1.1	.0	2.4	.9	.0	.0	.0	3.5
1-2	.2	2.3	.9	.0	.0	.0	3.4	.7	13.8	6.1	.0	.0	.0	20.6
3-4	.0	1.9	3.1	.0	.0	.0	5.0	.9	7.8	17.4	.7	.0	.0	26.8
5-6	.0	.6	2.2	.0	.0	.0	2.8	.0	2.0	10.8	1.4	.0	.0	14.2
7	.0	.0	.6	.0	.0	.0	.6	.0	.5	4.1	1.1	.0	.0	5.7
8-9	.0	.0	.2	.2	.0	.0	.3	.0	.0	2.3	.1	.0	.0	2.4
10-11	.0	.0	.2	.0	.0	.0	.2	.0	.0	.7	.5	.0	.0	1.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	5.9	7.2	.2	.0	.0	13.5	1.8	26.5	42.3	3.8	.0	.0	74.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.8	.0	.0	.0	.0	.8	.0	.2	.0	.0	.0	.0	.2
1-2	.0	2.0	.9	.0	.0	.0	2.9	.0	.1	.0	.0	.0	.0	.1
3-4	.0	2.4	.4	.0	.0	.0	2.8	.0	.0	.0	.0	.0	.0	.0
5-6	.2	.2	.9	.2	.0	.0	1.5	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	.2	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	5.4	1.8	.2	.0	.0	7.6	.0	.3	.3	.0	.0	.0	.6

PERIOD: (OVER-ALL) 1963-1973

FEBRUARY

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.5	.0	.0	.0	.0	.5	.0	.5	.0	.0	.0	.0	.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	97.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.3	4.6	.9	.0	.0	.0	7.8	
1-2	.9	19.2	7.6	.0	.0	.0	27.7	
3-4	.9	12.4	21.3	.7	.0	.0	35.2	
5-6	.2	2.7	14.0	1.4	.0	.0	18.3	
7	.0	.5	5.0	1.1	.0	.0	6.6	
8-9	.0	.0	2.5	.2	.0	.0	2.7	
10-11	.0	.0	.9	.5	.0	.0	1.4	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.3	39.4	52.2	4.1	.0	.0	100.0	437

PERIOD: (OVER-ALL) 1949-1973

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.6	15.8	18.3	7.9	2.1	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	382	3
6-7	.1	1.8	8.2	9.7	4.6	2.2	.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	214	5
8-9	.0	.0	2.4	2.7	3.5	1.2	1.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	87	6
10-11	.0	.0	.5	.3	1.0	.3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	27	6
12-13	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	5
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	7
INDET	2.6	1.0	1.5	.5	.6	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	52	3
TOTAL	57	190	248	168	92	35	22	4	1	0	0	0	0	0	0	0	0	0	0	777	4
PCT	7.3	19.3	31.9	21.6	11.8	4.5	2.8	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1924-1973  
(OVER-ALL) 1867-1973

MARCH

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	3.5	1.5	.2	.0	.0	.0	.0	5.2	2.3	.5	.2	.0	.5	.0	91.1
NE	1.7	.7	1.1	.0	.0	.0	.0	3.4	1.3	.5	.5	.0	.3	.0	94.1
E	.7	.6	.0	.0	.0	.0	.0	1.3	2.2	1.9	.0	.0	.0	.0	94.6
SE	1.6	.0	.0	.0	.0	.0	.0	1.6	2.0	.0	.0	.0	1.6	.0	94.9
S	2.4	.0	.0	.0	.0	.0	.0	2.4	2.4	.0	.0	.0	.0	.0	95.2
SW	3.5	.0	.0	.0	.0	.0	.0	3.5	3.5	7.0	.0	.0	.0	.0	86.0
W	21.1	.0	.0	.0	.0	.0	.0	21.1	.0	.0	.0	.0	.0	.0	78.9
NW	7.1	4.5	.0	.0	.0	.0	.0	11.6	.9	1.8	.0	.0	.0	.0	85.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.2	.0	.0	.0	.0	.0	.0	1.2	1.2	1.2	1.1	.0	1.2	.0	94.2
TOT PCT	2.0	.8	.7	.0	.0	.0	.0	3.4	1.6	.8	.4	.0	.4	.0	93.5
TOT OBS:	1667														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	2.0	.7	.7	.0	.0	.0	.0	3.3	2.0	.2	.4	.0	.4	.0	93.6
06009	2.2	1.0	.6	.0	.0	.0	.0	3.7	1.8	.4	.2	.0	.6	.0	93.3
12015	1.3	.3	.5	.0	.0	.0	.0	2.1	1.6	1.3	.3	.0	.3	.0	94.6
18021	2.4	1.1	.8	.0	.0	.0	.0	4.0	.8	2.1	.5	.0	.0	.0	92.5
TOT PCT	2.0	.8	.6	.0	.0	.0	.0	3.3	1.6	.9	.4	.0	.4	.0	93.5
TOT OBS:	1701														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	2.3	10.1	2.4	.1	.0	.0	14.9	7.4	14.7	9.0	12.1	15.9	19.0	14.7	16.1	15.1		
NE	4.5	32.3	15.1	.5	.0	.0	52.3	8.9	52.4	48.4	57.2	52.3	52.1	57.5	50.7	43.7		
E	2.2	10.1	1.5	.1	.0	.0	13.9	6.7	14.5	22.0	15.1	12.6	10.6	14.5	11.5	16.4		
SE	1.3	3.0	.2	.0	.0	.0	4.4	5.2	4.6	9.0	4.3	4.2	2.9	2.8	3.3	6.8		
S	1.0	1.3	.0	.0	.0	.0	2.4	4.0	2.1	3.5	2.0	2.6	1.9	3.6	2.5	3.1		
SW	.5	1.3	.1	.0	.0	.0	1.8	5.6	2.0	3.1	1.3	3.1	1.5	2.0	1.6	1.4		
W	.3	.7	.1	.0	.0	.0	1.2	6.0	1.3	1.1	1.5	1.8	.8	.0	.7	.8		
NW	.4	1.3	.2	.0	.0	.0	1.8	6.4	1.4	.3	1.5	1.1	2.7	2.4	1.8	3.0		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	7.2						7.2	.0	6.9	2.8	5.0	6.5	8.4	2.4	11.8	9.7		
TOT OBS	585	1797	584	20	1	0	2987	7.2	506	144	665	371	455	124	422	300		
TOT PCT	19.6	60.2	19.6	.7	.0	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	09	12
N	7.4	7.0	.5	.0	.0		14.9	7.4	13.4	13.5	18.1	15.7	
NE	18.1	31.3	2.8	.1	.0		52.3	8.9	51.5	55.4	53.3	47.8	
E	8.0	5.6	.2	.0	.0		13.9	6.7	16.2	14.2	11.4	13.5	
SE	3.3	1.2	.0	.0	.0		4.4	5.2	5.6	4.3	2.9	4.8	
S	1.8	.6	.0	.0	.0		2.4	4.0	2.4	2.2	2.2	2.8	
SW	1.2	.6	.0	.0	.0		1.8	5.6	2.2	1.9	1.6	1.5	
W	.9	.2	.1	.0	.0		1.2	6.0	1.4	1.6	.6	.7	
NW	1.1	.6	.0	.0	.0		1.8	6.4	1.2	1.4	2.7	2.3	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	7.2						7.2	.0	6.0	5.5	7.1	10.9	
TOT OBS	1467	1406	110	4	0	2987	7.2		650	1036	579	722	
TOT PCT	49.1	47.1	3.7	.1	.0		100.0		100.0	100.0	100.0	100.0	

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	6.0	13.5	62.7	18.0	.2	.0	.0	7.1	100.0	650
06009	5.5	12.4	59.4	21.7	.8	.0	.0	7.7	100.0	1036
12015	7.1	10.5	60.4	20.4	1.4	.2	.0	7.7	100.0	579
18021	10.9	12.7	58.7	17.2	.4	.0	.0	6.8	100.0	722
TOT	216	369	1797	584	20	1	0	7.3		2987
PCT	7.2	12.4	60.2	19.6	.7	.0	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL CLOUD OBS	MEAN CLOUD COVER
M	2.8	3.6	5.7	1.9		4.7
NE	10.9	18.1	23.4	5.6		4.6
E	3.2	4.0	5.2	1.1		4.3
SE	1.1	.7	1.2	.7		4.0
S	.5	.3	1.1	.2		4.8
SW	.4	.8	.4	.0		3.6
W	.0	.0	.1	.7		7.2
NW	.2	.1	.8	.4		5.9
VAR	.0	.0	.0	.0		.0
CALM	2.4	1.3	2.1	.4		3.6
TOT OBS	217	298	415	104	1034	4.5
TOT PCT	21.0	28.8	40.1	10.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL CLOUD OBS	MEAN CLOUD COVER	000	150	300	600	1000	2000	3500	5000	6500	8000+	NM <5/8 ANY HGT	TOTAL OBS
M	2.8	3.6	5.7	1.9		4.7	.0	.0	.2	.8	1.2	.7	.1	.1	.0	.1	10.5	
NE	10.9	18.1	23.4	5.6		4.6	.0	.2	.7	2.5	5.4	4.1	1.4	.4	.0	.0	42.9	
E	3.2	4.0	5.2	1.1		4.3	.1	.0	.1	.7	.8	.5	.3	.1	.0	.0	11.0	
SE	1.1	.7	1.2	.7		4.0	.0	.0	.0	.1	.2	.1	.0	.0	.0	.0	2.8	
S	.5	.3	1.1	.2		4.8	.0	.0	.0	.1	.2	.4	.0	.0	.0	.0	1.4	
SW	.4	.8	.4	.0		3.6	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	1.2	
W	.0	.0	.1	.7		7.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.7	
NW	.2	.1	.8	.4		5.9	.0	.0	.1	.1	.3	.1	.0	.0	.0	.0	.9	
VAR	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	2.4	1.3	2.1	.4		3.6	.0	.0	.0	.3	.0	.5	.1	.0	.0	.0	5.3	
TOT OBS	217	298	415	104	1034	4.5	1	7	6	52	98	69	21	6	0	1	788	1034
TOT PCT	21.0	28.8	40.1	10.1	100.0		.1	.2	.6	5.0	6.5	6.7	2.0	.6	.0	.1	76.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	>10	>5	>2	VSBY (NM) >1	>1/2	>1/4	>50YD	>0
>6500	.1	.1	.1	.1	.1	.1	.1	.1
>5000	.6	.7	.7	.7	.7	.7	.7	.7
>3500	2.4	2.5	2.6	2.6	2.6	2.6	2.6	2.6
>2000	7.6	8.9	9.3	9.3	9.3	9.3	9.3	9.3
>1000	13.2	16.8	17.6	17.6	17.6	17.6	17.6	17.6
>600	16.2	21.3	22.6	22.6	22.6	22.6	22.6	22.6
>300	16.4	21.5	23.1	23.1	23.1	23.1	23.1	23.1
>150	16.4	21.6	23.3	23.3	23.3	23.3	23.3	23.3
>0	16.4	21.7	23.4	23.4	23.4	23.4	23.4	23.4
TOTAL	174	230	248	248	248	248	248	248

TOTAL NUMBER OF OBS: 1059

PCT FREQ NM <5/8: 76.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	9	10	TOTAL OBS
4.1	15.3	23.1	20.4	15.3	8.0	6.9	4.6	4.2	.1		1129

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.2	
1<2	PCP	.1	.1	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	NO PCP	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.2	.2	.0	.0	.0	.0	.0	.1	.0	.0	.4	
2<5	PCP	.3	.3	.0	.0	.0	.1	.1	.1	.0	.0	.8	
	NO PCP	.1	1.1	.1	.0	.1	.0	.0	.1	.0	.1	1.5	
	TOT %	.4	1.4	.1	.0	.1	.1	.1	.2	.0	.1	2.3	
5<10	PCP	.3	.6	.2	.1	.0	.0	.1	.0	.0	.1	1.3	
	NO PCP	2.0	7.4	1.4	.1	.3	.0	.1	.1	.0	.1	11.5	
	TOT %	2.3	8.0	1.6	.2	.3	.0	.2	.1	.0	.2	12.7	
10+	PCP	.0	.7	.0	.0	.1	.0	.0	.0	.0	.0	.9	
	NO PCP	11.3	49.3	12.9	3.6	2.1	1.6	.3	1.3	.0	4.9	84.3	
	TOT %	11.4	46.0	12.9	3.6	2.2	1.6	.3	1.4	.0	4.9	84.3	
TOT OBS													1666
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.1	.3	.0	.0	.0	.0	.0	.1	.0	.0	.5	
	11-21	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.2	.3	.0	.0	.0	.0	.0	.1	.0	.0	.7	
2<5	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.3	
	4-10	.1	.7	.0	.0	.0	.0	.1	.1	.0	.0	1.2	
	11-21	.2	.7	.0	.0	.0	.0	.0	.1	.0	.0	1.0	
	22+	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.3	1.5	.2	.0	.1	.1	.1	.1	.0	.1	2.5	
5<10	0-3	.1	.4	.1	.0	.1	.0	.0	.1	.0	.3	1.1	
	4-10	1.1	2.1	1.0	.1	.1	.1	.0	.1	.0	.0	5.8	
	11-21	.8	3.2	.2	.0	.0	.0	.1	.0	.0	.0	4.3	
	22+	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	2.1	5.8	1.3	.1	.2	.1	.1	.2	.0	.3	11.3	
10+	0-3	1.8	3.7	2.0	1.2	.8	.3	.3	.3	.0	6.4	16.9	
	4-10	8.6	29.4	8.7	2.3	1.1	1.1	.3	1.1	.0	.0	52.6	
	11-21	1.5	12.0	1.4	.1	.0	.1	.0	.1	.0	.0	15.2	
	22+	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.4	
	TOT %	12.0	45.5	12.1	3.6	1.9	1.7	.6	1.5	.0	6.4	85.1	
TOT OBS													2198
TOT PCT													100.0

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NM >4/8) AND  
OCCURRENCE OF NM <3/8 BY HOUR

HOURL (GMT)	000 149	150 249	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <3/8 ANY HGT	TOTAL OBS
00003	.0	.0	.3	3.4	6.8	6.5	1.7	.7	.0	.0	19.4	80.6	274
06009	.3	.0	.3	5.5	6.4	7.0	2.1	.3	.0	.0	21.3	78.1	329
12015	.0	.0	.4	7.3	7.3	6.9	2.8	1.2	.0	.0	26.0	74.0	246
18021	.0	.8	1.2	2.8	11.7	4.5	.8	.0	.0	.4	22.3	77.7	247
TOT	1	2	6	53	88	70	21	6	0	1	248	803	1116
PCT	.1	.2	.5	4.7	7.9	6.3	1.9	.5	.0	.1	22.2	77.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.4	.2	.7	1.1	10.9	86.6	939
06009	.1	.1	.5	2.6	10.9	86.0	700
12015	.0	.2	1.1	2.3	12.5	83.9	472
18021	.0	.4	.8	3.8	10.7	84.3	522
TOT	3	5	19	55	250	1905	2233
PCT	.1	.2	.7	2.5	11.2	85.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET) NM >4/8) BY HOUR

HOURL (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NM <3/8 AND 5+	TOTAL OBS
00003	.0	.4	4.7	15.8	79.6	279
06009	.3	.6	8.0	15.7	76.4	313
12015	.0	.4	9.0	18.8	72.2	234
18021	.0	2.1	8.6	17.6	73.8	233
TOT	1	9	79	178	802	1059
PCT	.1	.8	7.5	16.8	75.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	.0	.1	.0	.0	.0	1	.1
90/94	.0	.0	.0	.1	.5	.4	.3	.0	13	1.4
85/89	.0	.0	.0	.0	1.5	5.9	2.0	.0	86	9.4
80/84	.0	.0	.0	.0	1.2	22.2	39.7	6.9	643	70.0
75/79	.0	.0	.0	.0	.1	1.8	11.8	5.4	176	19.2
TOTAL	0	0	0	1	32	279	494	113	919	100.0
PCT	.0	.0	.0	.1	3.5	30.4	53.8	12.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
90/94	.0	1.2	.2	.0	.0	.0	.0	.0	.0	.0
85/89	.7	4.6	1.9	.6	.5	.2	.1	.8	.0	.8
80/84	7.8	40.6	9.7	2.7	1.9	1.2	.1	1.1	.0	4.9
75/79	4.0	10.2	2.6	.2	.1	.0	.4	.6	.0	1.2
TOTAL	12.5	56.6	14.4	3.4	2.5	1.4	.5	1.7	.0	6.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	95	88	85	81	77	75	72	81.2	648
06009	96	91	88	82	78	76	68	82.6	1015
12015	91	87	84	81	77	75	73	81.1	582
18021	86	84	83	81	77	76	74	80.4	726
TOT	96	90	86	81	78	75	68	81.4	2971

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.4	21.5	65.6	12.6	84	247
06009	.0	.4	11.0	50.0	33.1	5.5	78	272
12015	.0	.0	.0	27.9	56.7	15.4	83	208
18021	.0	.0	1.4	18.9	63.1	16.6	84	217
TOT	0	1	34	288	507	114	82	944

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	H FOG	W FOG
14/16	.0	.0	.0	.0	.0	.1	.0	1	.0	.1
11/13	.0	.0	.0	.0	.1	.1	.1	4	.0	.3
9/10	.0	.0	.0	.0	.2	.4	.1	10	.0	.6
7/8	.0	.0	.1	.0	.7	.2	.1	18	.0	1.2
6	.0	.0	.0	.0	.5	.1	.0	10	.0	.6
5	.0	.0	.1	.8	1.4	.1	.0	38	.0	2.3
4	.0	.0	.1	7.7	1.4	.3	.0	69	.1	4.4
3	.0	.0	.3	1.1	1.4	.0	.0	43	.0	2.8
2	.0	.0	.8	8.3	2.0	.1	.0	173	.0	11.2
1	.0	.0	1.9	5.7	.3	.0	.0	122	.0	7.9
0	.0	.3	6.8	20.1	.7	.0	.0	432	.1	27.9
-1	.0	.0	4.3	8.5	.1	.0	.0	167	.1	10.7
-2	.0	.6	7.4	8.8	.1	.0	.0	261	.2	16.7
-3	.0	.3	2.8	2.4	.1	.0	.0	87	.0	5.6
-4	.1	.3	3.2	1.3	.0	.0	.0	74	.0	4.8
-5	.0	.1	1.2	.2	.0	.0	.0	23	.0	1.5
-6	.0	.0	.4	.0	.0	.0	.0	6	.0	.4
-7/-8	.0	.1	.1	.1	.0	.0	.0	6	.0	.4
-11/-13	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
TOTAL	1	27	454	898	132	23	4	1545	6	1539
PCT	.1	1.7	29.4	58.1	8.9	1.5	.3	100.0	.4	99.6

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.4	.8	.0	.0	.0	.0	1.2	.5	4.2	.2	.0	.0	.0	4.9
1-2	.2	4.8	1.3	.0	.0	.0	6.3	1.1	16.4	8.7	.0	.0	.0	28.2
3-6	.0	2.7	.9	.2	.0	.0	3.8	.9	6.3	7.2	.1	.0	.0	15.0
5-6	.0	.2	.4	.0	.0	.0	.6	.0	1.6	4.8	.0	.0	.0	6.3
7	.0	.0	.1	.2	.0	.0	.7	.0	.2	2.3	.0	.0	.0	2.5
8-9	.0	.0	.2	.0	.0	.0	.2	.0	.0	.3	.0	.0	.0	.5
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.1	.0	.5
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	8.6	3.3	.3	.0	.0	12.9	2.5	21.2	24.0	.3	.1	.0	58.0

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	1.1	2.0	.0	.0	.0	.0	3.1	.2	.7	.0	.0	.0	.0	.9
1-2	.0	5.4	.6	.0	.0	.0	6.0	.0	1.6	.0	.0	.0	.0	1.6
3-6	.0	.5	.9	.0	.0	.0	1.4	.0	.8	.1	.0	.0	.0	.8
5-6	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	7.9	2.2	.0	.2	.0	11.4	.2	3.0	.1	.0	.0	.0	3.3



PERIOD: (OVER-ALL) 1963-1973

MARCH

AREA 0006 NATUNA ISLAND  
3.6N 107.0E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.6	.0	.0	.0	.0	.9	.3	.4	.0	.0	.0	.0	.8
1-2	.4	1.0	.0	.0	.0	.0	1.4	.2	1.2	.2	.0	.0	.0	1.6
3-4	.0	.4	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	1.9	.0	.0	.0	.0	2.7	.6	1.6	.2	.0	.0	.0	2.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.4	.0	.0	.0	.4	.0	1.0	.1	.1	.0	.0	1.2	92.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	11.6	8.6	.2	.0	.0	.0	20.4	
1-2	2.2	32.3	10.8	.0	.0	.0	45.3	
3-4	.9	11.6	9.2	.0	.0	.0	22.0	
5-6	.0	1.8	5.7	.0	.0	.0	7.5	
7	.0	.2	2.1	.0	.0	.0	3.5	
8-9	.0	.0	.7	.0	.0	.0	.7	
10-11	.0	.0	.2	.0	.0	.0	.7	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	14.7	54.5	29.9	.7	.2	.0	100.0	454

PERIOD: (OVER-ALL) 1949-1973

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<1	7.9	30.0	15.5	5.5	1.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	497	2
1-2	.0	2.9	4.8	5.7	2.2	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	124	4
3-4	.0	.2	.5	2.6	1.5	.6	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	49	6
5-6	.0	.0	.1	1.0	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	6
7-8	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	5
9-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDEX	10.7	2.4	1.6	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	125	1
TOTAL	153	292	185	125	48	11	6	1	0	0	0	0	0	0	0	0	0	0	0	821	3
PCT	18.6	35.6	22.5	15.2	5.8	1.3	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1924-1973  
(OVER-ALL) 1957-1973

APRIL

AREA 0006 YATUHA ISLAND  
3.6N 106.9E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	1.5	.0	.0	.0	.0	.0	1.5	4.8	1.0	.8	.0	.8	.0	91.0
NE	.1	1.2	.2	.0	.0	.0	.0	1.5	.9	.6	.0	.0	.0	.2	96.8
E	.7	1.7	.3	.0	.0	.0	.0	2.7	1.7	.2	.2	.0	.0	.2	95.2
SE	1.0	1.4	.7	.0	.0	.0	.0	3.0	2.4	.7	.3	.0	.7	.0	93.6
S	1.5	.8	.0	.0	.0	.0	.0	2.3	4.8	4.2	.0	.0	.0	.0	88.7
SW	3.4	2.0	.0	.0	.0	.0	.0	5.4	.2	3.4	.0	.0	.0	.0	91.9
W	.0	7.2	.0	.0	.0	.0	.0	7.2	2.4	.0	.0	.0	.0	.0	90.4
NW	2.8	2.8	2.8	.0	.0	.0	.0	8.5	7.1	.0	.0	.0	2.8	.0	81.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.4	.0	.0	.0	.0	.4	.9	3.5	.0	.0	1.3	.0	93.9
TOT PCT	.7	1.4	.3	.0	.0	.0	.0	2.3	1.9	1.4	.1	.0	.4	.1	93.9
TOT OBS:	1628														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.9	.9	.2	.0	.0	.0	.0	2.1	2.1	.2	.0	.0	.2	.0	95.6
06009	.4	1.2	.2	.0	.0	.0	.0	1.8	2.4	.2	.0	.0	.2	.2	95.4
12015	.8	1.3	.3	.0	.0	.0	.0	2.3	2.0	1.5	.8	.0	.8	.0	92.7
18021	.6	2.2	.6	.0	.0	.0	.0	3.4	.8	4.7	.0	.0	.3	.3	90.8
TOT PCT	.7	1.4	.3	.0	.0	.0	.0	2.3	1.9	1.5	.2	.0	.4	.1	93.8
TOT OBS:	1677														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)					
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18
N	1.5	5.3	.8	.0	.0	.0	7.7	6.1	6.5	6.6	6.4	10.2	8.7	7.5	7.6	8.7
NE	4.7	18.1	9.0	.1	.0	.0	27.9	7.2	29.7	30.4	27.2	25.7	29.9	31.9	26.5	24.6
E	3.9	11.6	1.8	.1	.0	.0	17.4	6.2	16.6	23.0	20.9	14.5	14.4	26.1	13.7	14.6
SE	3.0	5.6	.4	.1	.0	.0	9.1	5.0	10.6	12.8	10.5	8.5	8.5	6.9	6.3	8.3
S	3.1	5.1	.3	.0	.0	.0	8.5	4.8	8.8	9.0	8.1	8.6	7.1	6.9	9.3	10.1
SW	2.6	4.0	.4	.1	.0	.0	7.1	5.3	6.1	8.2	6.7	9.4	8.1	6.5	6.6	5.9
W	.8	2.3	.2	.0	.0	.0	3.3	5.7	3.1	2.0	3.4	4.8	2.0	5.6	2.4	4.5
NW	.7	1.6	.1	.0	.0	.0	2.5	5.3	2.7	.0	2.6	2.8	3.2	1.7	2.5	2.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	16.5						16.5	.0	15.9	7.9	14.3	15.5	18.1	6.9	23.2	21.1
TOT OBS	1050	1525	299	10	1	0	2841	5.1	441	152	672	330	454	116	280	280
TOT PCT	37.0	93.7	9.0	.4	.0	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	03	12	18
N	5.2	2.3	.2	.0	.0			7.7	6.1	6.5	7.6	8.1
NE	15.0	11.9	1.0	.0	.0			27.9	7.2	29.9	30.3	25.7
E	11.5	5.6	.3	.0	.0			17.4	6.2	18.3	18.8	15.2
SE	7.2	1.8	.1	.0	.0			9.1	5.0	11.2	9.8	7.1
S	6.8	1.7	.0	.0	.0			8.5	4.8	8.9	8.3	9.6
SW	5.2	1.7	.2	.0	.0			7.1	5.3	6.7	7.6	6.3
W	2.4	.8	.1	.0	.0			3.3	5.7	2.8	3.9	3.3
NW	1.8	.7	.0	.0	.0			2.5	5.3	2.0	2.7	2.4
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0
CALM	16.5							16.5	.0	13.8	14.7	22.3
TOT OBS	2035	752	93	0	1	2841		5.1		593	1002	676
TOT PCT	71.6	26.5	1.9	.0	.0			100.0		100.0	100.0	100.0

PERIOD: (PRIMARY) 1924-1973  
(COVER-ALL) 1957-1973

APRIL

AREA 0000 NATUNA ISLAND  
3.6N 100.9E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-5	4-10	WIND SPEED (KNOTS)				40+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000	13.8	22.1	55.6	8.3	.2	.0	.0	.0	5.2	100.0	593
0600	14.7	20.9	54.9	9.1	.4	.1	.0	.0	5.3	100.0	1002
1200	15.8	20.7	52.1	10.9	.5	.0	.0	.0	5.7	100.0	570
1800	22.3	18.0	51.5	7.8	.3	.0	.0	.0	4.8	100.0	676
TOT	470	580	1525	255	10	1	0	0	5.1		2841
PCT	16.5	20.4	53.7	9.0	.4	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL CLOUD OBS	MEAN CLOUD COVER
N	1.6	2.5	2.9	.8		4.5
NE	8.7	11.5	10.8	1.2		3.9
E	5.0	7.5	5.4	1.0		3.8
SE	1.5	2.9	3.3	.9		4.5
S	1.8	2.1	2.2	.8		4.2
SW	1.2	1.3	2.5	.9		4.7
W	.3	.8	.8	.3		4.8
NW	.4	.3	1.1	.6		5.5
VAR	.0	.0	.0	.0		.0
CALM	5.5	5.1	3.7	.9		3.4
TOT OBS	264	347	334	75	1020	4.0
TOT PCT	25.9	34.0	32.7	7.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL CLOUD OBS	MEAN CLOUD COVER	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY MGT	TOTAL OBS
N	1.6	2.5	2.9	.8		4.5	.0	.0	.0	.2	1.0	.5	.0	.0	.0	.0	.0	6.1
NE	8.7	11.5	10.8	1.2		3.9	.0	.1	.1	1.0	1.9	.9	.1	.0	.0	.0	.1	27.8
E	5.0	7.5	5.4	1.0		3.8	.0	.1	.1	.3	.3	.6	.0	.2	.0	.0	.0	17.3
SE	1.5	2.9	3.3	.9		4.5	.1	.0	.0	.7	.6	.2	.3	.0	.0	.0	.1	6.4
S	1.8	2.1	2.2	.8		4.2	.0	.0	.0	.3	.9	.4	.0	.0	.0	.0	.0	5.2
SW	1.2	1.3	2.5	.9		4.7	.0	.0	.0	.5	.8	.0	.1	.0	.0	.0	.0	4.5
W	.3	.8	.8	.3		4.8	.0	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0	1.9
NW	.4	.3	1.1	.6		5.5	.0	.0	.0	.0	.3	.6	.0	.0	.0	.0	.0	1.5
VAR	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.5	5.1	3.7	.9		3.4	.0	.0	.0	.2	.8	.5	.2	.0	.0	.0	.0	13.5
TOT OBS	264	347	334	75	1020	4.0	1	2	2	32	72	40	7	2	0	2	860	1020
TOT PCT	25.9	34.0	32.7	7.4	100.0		.1	.2	.2	3.1	7.1	3.9	.7	.2	.0	.2	84.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH <5/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.1	.2	.2	.2	.2	.2	.2	.2
>5000	.3	.4	.4	.4	.4	.4	.4	.4
>3500	.6	1.1	1.1	1.1	1.1	1.1	1.1	1.1
>2000	3.8	4.8	4.9	4.9	4.9	4.9	4.9	4.9
>1000	9.3	11.5	11.8	11.8	11.8	11.9	12.0	12.0
>600	11.4	14.4	14.9	14.9	14.9	15.0	15.1	15.1
>300	11.6	14.6	15.1	15.1	15.1	15.2	15.3	15.3
>150	11.7	14.7	15.2	15.2	15.2	15.4	15.5	15.5
>0	11.7	14.7	15.2	15.2	15.2	15.4	15.5	15.5
TOTAL	122	153	159	159	160	161	162	162

TOTAL NUMBER OF OBS: 1042

PCT FREQ NH <5/8: 84.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

C	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
5.0	16.8	26.8	22.7	13.4	6.9	4.4	1.9	2.7	.1	1151

PERIOD: (PRIMARY) 1924-1973  
(OVER-ALL) 1857-1973

APRIL

AREA 0006 NATUNA ISLAND  
3.6N 106.9E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAP	CALM	PCT	TOTAL OBS
<1/2	PCP	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.2	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.2	
2-5	PCP	.0	.1	.0	.0	.0	.2	.1	.0	.0	.0	.4	
	NO PCP	.0	.2	.1	.0	.1	.1	.0	.1	.0	.1	.6	
	TOT %	.0	.3	.1	.0	.1	.3	.1	.1	.0	.1	1.0	
5<10	PCP	.0	.2	.2	.2	.2	.1	.1	.1	.0	.0	1.0	
	NO PCP	1.0	3.2	1.4	.7	.9	.3	.3	.1	.0	1.0	9.0	
	TOT %	1.0	3.4	1.6	.8	.8	.4	.4	.2	.0	1.0	10.0	
10+	PCP	.0	.2	.2	.1	.0	.1	.0	.1	.0	.1	.7	
	NO PCP	6.2	27.9	16.6	9.0	7.1	5.4	2.1	1.5	.0	12.7	87.9	
	TOT %	6.2	28.1	16.8	9.1	7.1	5.4	2.1	1.5	.0	12.8	88.6	
TOT OBS													1625
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAP	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
2<5	0-3	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.4	
	4-10	.0	.2	.1	.0	.1	.1	.2	.0	.0	.0	.6	
	11-21	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.4	.2	.0	.1	.1	.2	.1	.0	.0	1.3	
5<10	0-3	.2	.5	.3	.2	.4	.2	.1	.0	.0	.9	2.6	
	4-10	.5	1.8	.7	.3	.4	.3	.2	.2	.0	.0	4.5	
	11-21	.1	.6	.3	.1	.0	.0	.0	.0	.0	.0	1.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.8	2.8	1.3	.7	.8	.5	.3	.2	.0	.9	8.4	
10+	0-3	1.4	4.2	3.4	2.3	2.6	2.3	.6	.6	.0	15.7	32.0	
	4-10	4.4	17.4	10.9	5.4	4.9	3.4	1.6	1.4	.0	.0	49.4	
	11-21	.5	4.1	1.8	.3	.2	.4	.1	.1	.0	.0	7.4	
	22+	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	6.2	25.7	16.1	8.1	7.7	6.1	2.2	2.1	.0	15.7	89.9	
TOT OBS													2124
TOT PCT													100.0

APRIL

PERIOD: (PRIMARY) 1924-1973  
(OVER-ALL) 1957-1973AREA 0006 NATUNA ISLAND  
3.6N 106.9E

TABLE 10

PERCENT FREQUENCY OF CRICING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.4	.0	2.5	7.5	2.1	1.1	.7	.0	.0	14.2	85.8	281
06009	.3	.0	.0	1.7	8.2	3.9	.3	.0	.0	.0	14.4	85.6	355
12015	.0	.4	.7	4.0	5.9	4.4	.4	.0	.0	.4	16.2	83.8	272
18021	.0	.0	.0	3.5	3.9	3.5	.9	.0	.0	.4	12.3	87.7	228
TOT	1	2	2	32	75	40	7	2	0	2	163	973	1136
PCT	.1	.2	.2	2.8	6.6	3.5	.6	.2	.0	.2	14.3	85.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.2	1.4	6.4	92.1	5.0
06009	.3	.3	.1	1.4	5.1	92.8	69.0
12015	.0	.2	.4	1.3	11.6	86.5	467
18021	.0	.0	.0	1.0	11.6	87.4	499
TOT	2	3	4	28	100	1957	2174
PCT	.1	.1	.2	1.3	6.3	90.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.4	3.1	12.0	84.9	258
06009	.3	.9	3.3	12.0	84.7	333
12015	.0	1.2	6.9	11.8	81.3	246
18021	.0	.0	4.9	9.8	85.4	205
TOT	1	7	46	120	876	1042
PCT	.1	.7	4.4	11.5	84.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP °	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90-94	.0	.0	.1	.3	1.3	.6	.0	.0	22	2.3
85-89	.0	.0	.0	.0	3.4	15.1	2.4	.6	203	21.5
80-84	.0	.0	.0	.0	1.4	31.6	24.0	5.7	660	72.7
75-79	.0	.0	.0	.0	.0	.3	1.7	1.4	32	3.4
TOTAL	0	0	1	3	57	449	359	73	942	100.0
PCT	.0	.0	.1	.3	6.1	47.7	38.1	7.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.1	.8	.6	.1	.2	.1	.2	.0	.0	.2
1.3	5.6	4.5	2.4	1.6	1.9	.4	.3	.0	3.6
5.6	23.5	13.8	5.6	5.3	4.3	1.5	1.5	.0	11.8
.4	1.0	.5	.1	.3	.4	.1	.2	.0	.4
7.4	30.9	19.3	8.3	7.1	6.7	2.2	2.0	.0	16.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	93	90	87	83	80	77	72	82.9	599
06009	97	91	89	84	80	77	68	84.5	995
12015	96	88	86	83	80	78	76	82.9	573
18021	88	84	85	82	79	77	73	82.0	687
TOT	97	90	88	83	80	77	68	83.3	2854

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	2.9	17.5	49.6	10.0	81	240		
06009	.0	1.3	15.3	60.3	19.3	2.7	75	300		
12015	.0	.0	3.1	52.0	38.6	3.2	80	228		
18021	.0	.0	1.0	38.4	53.1	9.6	82	209		
TOT	0	4	62	461	376	74	79	977		

APRIL

PERIOD: (PRIMARY) 1924-1973  
(OVER-ALL) 1857-1973

TABLE 17

AREA 0000 NATUNA ISLAND  
3.64 106.9EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.0	.0	.0	.1	1	.0	.1
9/10	.0	.0	.0	.1	.1	.1	.1	6	.0	.4
7/8	.0	.0	.0	.3	.3	.4	.1	17	.0	1.1
6	.0	.0	.0	.1	.3	.5	.0	13	.0	1.0
5	.0	.0	.0	.3	.6	.8	.0	26	.0	1.7
4	.0	.0	.0	1.1	2.0	.6	.0	57	.0	3.7
3	.0	.0	.0	.3	1.7	.3	.0	36	.0	2.3
2	.0	.0	.1	3.1	4.6	.1	.0	158	.0	9.9
1	.0	.0	.0	3.4	2.1	.1	.0	87	.0	5.6
0	.0	.0	.6	17.9	4.7	.1	.0	363	.1	23.2
-1	.0	.0	.4	10.0	2.1	.0	.0	196	.0	12.5
-2	.0	.1	1.1	17.1	1.3	.0	.0	306	.0	19.6
-3	.0	.0	.8	4.7	.4	.0	.0	93	.1	5.9
-4	.0	.1	1.3	3.3	.3	.0	.0	107	.0	6.9
-5	.0	.2	.8	3.0	.0	.0	.0	62	.0	4.0
-6	.0	.0	.6	.4	.0	.0	.0	17	.0	1.1
-7/-8	.0	.1	.4	.1	.0	.0	.0	11	.0	.7
-9/-10	.0	.1	.1	.1	.0	.0	.0	3	.0	.2
-11/-13	.1	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	1	9	99	1084	320	3	3	1559	3	1556
PCT	.1	.6	6.4	69.3	20.3	2.8	.2	100.0	.2	99.8

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.6	.0	.0	.0	.0	1.6	1.2	3.8	.0	.0	.0	.0	5.6
1-2	.4	2.2	.8	.0	.0	.0	3.1	1.8	11.7	3.2	.0	.0	.0	16.7
3-4	.0	.5	.8	.0	.0	.0	1.2	.7	3.8	3.3	.2	.0	.0	9.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.2	.9	.2	.0	.0	1.3
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-49	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	4.2	1.3	.0	.0	.0	6.0	3.2	21.5	8.3	.4	.0	.0	33.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.8	3.2	.0	.0	.0	.0	4.9	1.2	.8	.0	.0	.0	.0	1.9
1-2	1.5	11.4	1.1	.0	.0	.0	14.0	.4	2.6	.4	.0	.0	.0	3.5
3-4	.0	2.3	2.2	.0	.0	.0	4.5	.0	.7	.9	.0	.0	.0	1.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	3.2	16.9	3.4	.0	.0	.0	23.5	1.6	4.1	1.3	.0	.0	.0	7.0

PERIOD: (OVER-ALL) 1963-1973

APRIL

AREA 0006 NATUNA ISLAND  
3.6N 106.9E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	1.2	.0	.0	.0	.0	1.8	.3	.8	.0	.0	.0	.0	1.1
1-2	.5	1.3	.2	.0	.0	.0	2.0	.1	2.0	.1	.0	.0	.0	2.2
3-4	.0	.2	.0	.0	.0	.0	.2	.1	.4	.4	.0	.0	.0	.9
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	2.7	.2	.0	.0	.0	4.0	.5	3.2	.5	.0	.0	.0	4.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	.2	.0	.0	.0	.0	.5	.0	.1	.0	.0	.0	.0	.1	
1-2	.0	.8	.0	.0	.0	.0	.8	.2	.5	.3	.0	.0	.0	1.0	
3-4	.2	.6	.0	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.5	1.6	.2	.0	.0	.0	2.3	.2	.6	.3	.0	.0	.0	1.1	81.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	25.7	11.4	.6	.0	.0	.0	36.7	
1-2	5.3	21.9	5.7	.0	.0	.0	42.8	
3-4	.4	10.3	7.4	.2	.0	.0	18.4	
5-6	.0	.2	1.1	.7	.0	.0	1.5	
7	.0	.0	.6	.0	.0	.0	.6	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	30.4	53.8	15.4	.4	.0	.0	100.0	474

PERIOD: (OVER-ALL) 1949-1973

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
<6	11.4	29.7	12.7	1.8	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	462	2
6-7	.9	1.7	4.8	2.3	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	83	3
8-9	.0	1.1	1.8	1.1	.1	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	36	4
10-11	.0	.4	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	3
12-13	.0	.0	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	4
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDEX	22.0	4.2	1.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	230	0
TOTAL	283	303	170	45	13	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	819	2
PCT	34.6	37.0	20.8	5.5	1.6	.4	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1856-1972

44Y

AREA 0006 NATUNA ISLAND  
3,6N 106.9E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WNO DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG MEA
N	4.2	1.4	.0	.0	.0	.0	.0	5.6	3.1	1.4	1.4	.0	.0	.0	88.5
NE	5.6	1.5	1.0	.0	.0	.0	.0	7.1	4.5	2.0	.0	.0	.0	.0	86.4
E	.4	1.2	.0	.0	.0	.0	.0	1.6	3.8	.6	.0	.0	.0	.0	94.0
SE	3.8	1.1	.0	.0	.0	.0	.0	4.9	.7	4.6	.0	.0	.0	.0	89.8
S	.9	.9	.7	.0	.0	.0	.0	2.2	1.5	4.5	.0	.0	.2	.0	91.6
SW	2.5	3.7	.7	.0	.0	.0	.0	6.8	4.9	4.5	.0	.0	.0	.0	83.8
W	6.0	3.9	4.1	.0	.0	.0	.0	13.9	3.4	5.6	.0	.0	.0	.0	77.9
NW	5.4	4.7	.0	.0	.0	.0	.0	10.1	8.6	3.5	.0	.0	.0	.0	79.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.0	.0	.0	.0	.0	.0	.0	.0	1.0	5.4	.5	.0	1.0	.0	91.2
TOT PCT	2.5	1.9	.7	.0	.0	.0	.0	4.9	3.0	4.1	.1	.0	.2	.0	87.8
TOT OBS:	1645														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00003	2.2	2.0	1.3	.0	.0	.0	.0	5.1	2.7	1.1	.0	.0	.0	.0	91.1
04009	2.2	3.3	.0	.0	.0	.0	.0	5.5	4.3	.4	.0	.0	.2	.0	89.6
12015	2.8	.8	1.0	.0	.0	.0	.0	4.6	1.8	4.9	.3	.0	.0	.0	88.5
18021	2.5	1.4	.3	.0	.0	.0	.0	4.1	2.5	12.1	.3	.0	.6	.0	81.0
TOT PCT TOT OBS	2.4 1692	2.0	.7	.0	.0	.0	.0	4.9	2.9	4.1	.1	.0	.2	.0	87.9

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)					
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21
N	1.6	2.4	.2	.0	.0	.0	4.2	4.9	3.7	4.9	4.2	4.3	5.0	4.4	4.1	3.5	
NE	2.0	3.7	.3	.0	.0	.0	6.0	5.2	7.3	4.9	5.5	6.2	6.1	5.6	5.2	6.5	
E	2.2	4.7	.2	.0	.0	.0	7.2	5.1	6.7	7.8	8.4	7.4	7.6	8.5	5.8	5.4	
SE	2.8	7.1	.6	.0	.0	.0	10.5	5.6	9.8	14.0	11.5	10.7	10.3	9.5	9.1	10.3	
S	4.8	17.5	3.1	.0	.0	.0	25.4	6.6	26.8	31.6	25.3	26.7	20.8	26.6	23.9	27.2	
SW	3.9	16.2	3.4	.0	.0	.0	23.6	7.2	23.4	21.2	23.2	25.8	22.8	23.2	25.2	22.5	
W	1.6	3.5	1.1	.1	.0	.0	6.3	6.9	5.4	7.6	6.8	5.7	7.3	6.0	5.4	6.7	
NW	1.2	7.3	.5	.0	.0	.0	3.9	6.2	3.6	4.9	3.3	5.2	4.5	4.0	3.1	4.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	12.9						12.9	.0	13.4	3.0	11.9	8.0	15.4	12.1	18.1	13.8	
TOT OBS	977	1697	276	6	0	0	2956	5.5	501	132	680	348	448	124	398	325	
TOT PCT	33.1	57.4	9.3	.2	.0	.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+	TOTAL OBS				00	06	12	18
N	3.3	.9	.0	.0	.0	4.2	4.9	3.9	4.2	4.9	3.8		
NE	4.6	1.3	.1	.0	.0	6.0	5.2	6.8	5.7	6.0	5.8		
E	5.6	1.6	.0	.0	.0	7.2	5.1	6.9	8.0	7.8	5.6		
SE	7.2	3.3	.0	.0	.0	10.5	5.6	10.7	11.3	10.1	9.6		
S	14.5	10.6	.3	.0	.0	25.4	6.6	27.8	25.8	22.1	25.4		
SW	12.1	10.8	.7	.0	.0	23.6	7.2	22.9	24.1	22.9	24.0		
W	3.9	2.1	.3	.0	.0	6.3	6.9	5.8	6.4	7.0	6.0		
NW	2.2	1.4	.1	.0	.0	3.9	6.2	3.9	4.0	4.4	3.6		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	12.9					12.9	.0	11.2	10.6	14.7	16.2		
TOT OBS	1967	940	48	1	0	2956	5.5	633	1028	572	723		
TOT PCT	66.5	31.8	1.6	.0	.0	100.0		100.0	100.0	100.0	100.0		



PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1856-1972

MAY

AREA 0006 NATUNA ISLAND  
3.6N 106.9E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	0-2	3-4	5-7	8-10	11-21	22-32	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	11.2	19.4	57.3	11.8	.2	.0	.0	.0	5.8	100.0	633
06009	10.6	20.8	57.8	10.8	.0	.0	.0	.0	5.8	100.0	1028
12015	14.7	21.0	57.3	7.0	.0	.0	.0	.0	5.1	100.0	572
18021	16.2	19.2	57.0	6.9	.7	.0	.0	.0	5.3	100.0	723
TOT	381	596	1497	276	6	0	0	0	5.5		2956
PCT	12.9	20.2	57.4	9.3	.2	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL CLOUD OBS	MEAN CLOUD COVER
N	.7	1.0	1.4	.6		4.6
NE	1.0	2.3	1.9	1.0		4.6
E	1.1	3.4	2.9	.2		4.2
SE	1.6	2.4	5.2	1.2		4.9
S	3.5	7.6	10.7	3.0		4.8
SW	2.7	9.7	10.7	4.7		5.3
W	.7	1.3	3.4	1.4		5.6
NW	.4	.5	1.1	.8		5.6
VAR	.0	.0	.0	.0		.0
CALM	4.5	5.7	4.5	.8		3.8
TOT OBS	167	285	429	141	1022	4.8
TOT PCT	16.3	27.9	42.0	13.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4,8)  
AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH < 5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.0	.5	.1	.0	.0	.0	.0	3.2	
.0	.0	.3	.1	.7	.3	.0	.0	.0	.0	4.7	
.0	.0	.0	.2	.2	.1	.3	.1	.0	.1	6.8	
.2	.0	.0	.6	.9	.4	.0	.1	.1	.1	8.1	
.0	.0	.2	.5	3.4	1.0	.2	.0	.0	.1	19.6	
.0	.7	.3	1.9	3.5	1.4	.5	.1	.0	.0	16.2	
.0	.0	.1	.8	1.9	.2	.2	.0	.0	.0	4.3	
.0	.0	.3	.5	.3	.3	.1	.0	.0	.0	1.6	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.4	.6	.8	.6	.1	.4	.0	.2	10.5	
.2	.0	1.6	.8	12.0	.4	14	7	1	5	765	1022
.2	.0	1.6	4.7	11.7	4.3	1.4	.7	.1	.5	74.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	= OR > 10	= OR > 5	= OR > 2	VSBY (NM) = OR > 1	= OR > 1/2	= OR > 1/4	= OR > 50 YD	= OR > 0
= OR > 6500	.6	.6	.6	.6	.6	.6	.6	.6
= OR > 5000	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2
= OR > 3500	2.2	2.6	2.7	2.7	2.7	2.7	2.7	2.7
= OR > 2000	6.0	6.8	7.0	7.0	7.0	7.0	7.0	7.0
= OR > 1000	14.0	17.3	18.4	18.5	18.5	18.5	18.5	18.5
= OR > 600	17.3	21.5	22.7	22.9	22.9	22.9	23.0	23.1
= OR > 300	18.1	22.8	24.4	24.5	24.5	24.5	24.6	24.7
= OR > 150	18.1	22.9	24.5	24.6	24.6	24.6	24.7	24.8
= OR > 0	18.2	23.0	24.5	24.8	24.8	24.8	24.9	25.0
TOTAL	192	243	259	262	262	262	263	264

TOTAL NUMBER OF OBS: 1055

PCT FREQ NH < 5/8: 75.0

TABLE 7A

PERCENTAGE FREQ OF COM CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	9	TOTAL OBS
3.1	13.8	23.0	20.5	13.8	8.7	6.7	4.8	5.7	.1	1154

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1856-1972

MAY

AREA 0006 NATUNA ISLAND  
3.6N 106.9E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1	.1	
1<2	PCP	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.3	
2<5	PCP	.1	.1	.1	.0	.1	.3	.4	.0	.0	.0	1.1	
	NO PCP	.0	.1	.0	.1	.2	.6	.1	.1	.0	.1	1.4	
	TOT %	.1	.3	.1	.1	.3	.9	.5	.1	.0	.1	2.5	
5<10	PCP	.1	.1	.1	.1	.2	.5	.2	.2	.0	.0	1.5	
	NO PCP	.5	.6	.8	1.0	2.4	2.9	1.0	.6	.0	1.2	10.6	
	TOT %	.6	.7	.9	1.2	2.7	3.0	1.1	.7	.0	1.2	12.2	
10+	PCP	.1	.2	.0	.2	.2	.5	.4	.1	.0	.1	1.8	
	NO PCP	9.5	4.8	6.6	9.1	21.7	18.2	4.9	2.6	.0	11.1	82.9	
	TOT %	9.6	5.0	6.6	9.4	21.9	18.8	5.3	2.9	.0	11.1	84.6	
TOT OBS													1645
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.4	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.2	.1	.1	.0	.0	.0	.6	
2<5	0-3	.0	.0	.0	.0	.1	.3	.1	.0	.0	.1	.7	
	4-10	.1	.1	.2	.1	.3	.5	.2	.0	.0	.0	1.5	
	11-21	.0	.0	.0	.0	.1	.1	.2	.0	.0	.0	.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.2	.2	.1	.4	.9	.5	.1	.0	.1	2.6	
5<10	0-3	.2	.3	.3	.3	.3	.4	.3	.1	.0	1.1	3.3	
	4-10	.2	.3	.4	.6	1.6	1.6	.5	.3	.0	.0	5.5	
	11-21	.1	.0	.0	.0	.4	.5	.3	.2	.0	.0	1.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.5	.6	.7	.9	2.3	2.5	1.0	.6	.0	1.1	10.3	
10+	0-3	1.3	1.5	1.9	2.5	3.1	2.7	1.2	.9	.0	12.0	27.2	
	4-10	2.0	2.8	4.6	6.2	16.4	14.3	3.1	1.8	.0	.0	51.2	
	11-21	.0	.1	.2	.6	3.0	3.1	.7	.1	.0	.0	7.7	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	3.4	4.4	6.7	9.2	22.5	20.0	5.0	2.8	.0	12.0	86.1	
TOT OBS													2136
TOT PCT													100.0

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1856-1972

MAY

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 209	200 599	300 999	400 1999	500 3499	600 4999	700 6499	800 7999	900+ 8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00Z03	.0	.3	1.0	5.6	10.8	3.0	.7	1.3	.3	.0	23.0	77.0	305
06Z09	.6	.0	2.1	3.9	12.9	4.2	2.4	.6	.0	.0	26.6	73.4	334
12Z15	.0	.0	1.6	3.1	10.1	5.8	1.2	.0	.0	.8	22.5	77.5	258
18Z21	.0	.0	1.4	5.0	8.6	3.6	.9	.5	.0	1.4	21.2	78.8	222
TOT	2	1	17	49	121	46	15	7	1	5	264	855	1119
PCT	.2	.1	1.5	4.4	10.8	4.1	1.3	.6	.1	.4	23.6	76.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00Z03	.2	.0	.6	2.3	6.8	90.1	927
06Z09	.1	.1	.4	2.5	7.5	89.3	682
12Z15	.4	.4	.8	4.0	13.6	80.7	471
18Z21	.4	.0	.6	1.8	14.5	82.7	504
TOT	6	3	13	57	224	1881	2184
PCT	.3	.1	.6	2.6	10.3	86.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00Z03	.0	1.4	9.7	14.9	75.4	289
06Z09	.6	3.2	9.6	20.1	70.3	313
12Z15	.4	2.0	7.4	18.4	74.2	244
18Z21	.0	1.4	7.2	15.3	77.5	209
TOT	3	22	91	183	781	1055
PCT	.3	2.1	8.6	17.3	74.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.1	1.7	.8	.2	.1	28	2.9
85/89	.0	.0	.0	.1	3.4	22.3	8.1	.8	335	34.7
80/84	.0	.0	.0	.0	1.1	20.0	33.1	6.2	583	60.4
75/79	.0	.0	.0	.0	.0	.1	.6	1.0	19	2.0
TOTAL	0	0	0	2	60	417	407	79	965	100.0
PCT	.0	.0	.0	.2	6.2	43.2	42.2	8.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.1	.1	.4	.4	.5	.5	.2	.0	.0	.0
85/89	.8	2.2	3.0	3.8	10.2	7.3	2.3	.6	.0	4.4
80/84	2.2	3.6	4.1	5.7	15.2	15.4	4.3	1.9	.0	8.0
75/79	.1	.1	.0	.0	.1	.8	.3	.3	.0	.2
TOT	3.2	6.0	7.4	9.9	26.0	24.0	7.1	2.9	.0	13.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00Z03	97	91	88	84	80	77	75	83.7	632
06Z09	95	91	90	85	80	78	75	85.1	1011
12Z15	97	90	87	84	80	75	73	83.6	568
18Z21	88	86	85	83	80	76	73	82.8	724
TOT	97	91	88	84	80	77	73	84.0	2935

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00Z03	.0	.0	4.3	38.8	48.2	8.7	81	276
06Z09	.0	.7	15.2	53.4	24.5	6.2	77	290
12Z15	.0	.0	1.8	42.8	46.0	8.4	81	226
18Z21	.0	.0	1.9	32.5	55.5	10.0	82	209
TOT	0	2	64	429	424	82	80	1001

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1956-1972

MAY

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TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 71	77 80	81 84	85 88	89 92	>92	TOT	N FUG	NO FUG
9/10	.0	.0	.0	.1	.1	.1	4	.0	.3
7/8	.0	.0	.1	.1	.3	.1	10	.0	.6
6	.0	.0	.0	.0	.3	.0	4	.0	.3
5	.0	.0	.1	.2	1.0	.0	21	.0	1.3
4	.0	.0	.4	1.2	1.3	.0	47	.0	3.0
3	.0	.1	.2	.8	.5	.0	25	.0	1.6
2	.0	.0	3.1	4.1	.8	.0	142	.0	9.0
1	.0	.0	1.2	4.7	.1	.0	94	.0	6.0
0	.2	.2	13.2	8.3	.1	.0	344	.1	21.8
-1	.0	.1	6.7	4.9	.1	.0	184	.0	11.7
-2	.1	.6	16.4	2.7	.0	.0	311	.1	19.7
-3	.0	.3	5.9	.6	.0	.0	108	.0	6.9
-4	.1	.9	8.3	.4	.0	.0	154	.0	9.8
-5	.2	1.3	2.7	.2	.0	.0	70	.0	4.5
-6	.1	.3	1.0	.1	.0	.0	23	.0	1.5
-7/-8	.2	.6	.4	.0	.0	.0	19	.0	1.2
-9/-10	.1	.2	.3	.0	.0	.0	9	.0	.6
-11/-13	.1	.1	.1	.0	.0	.0	3	.0	.2
TOTAL	16		946		71		1573	2	1571
PCT	1.0	4.7	60.1	20.4	4.5	.2	100.0	.1	99.9

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

MGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.7	.0	.0	.0	.0	1.0	1.3	.4	.0	.0	.0	.0	1.6
1-2	.4	1.1	.0	.0	.0	.0	1.4	.3	1.7	.0	.0	.0	.0	2.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	1.7	.0	.0	.0	.0	2.5	1.6	2.3	.0	.0	.0	.0	3.8

MGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	1.1	.0	.0	.0	.0	2.0	.5	1.1	.0	.0	.0	.0	1.7
1-2	.2	2.2	.2	.0	.0	.0	2.6	.0	2.1	.3	.0	.0	.0	4.0
3-4	.0	.4	.2	.0	.0	.0	.7	.0	1.0	.3	.0	.0	.0	1.6
5-6	.0	.0	.2	.0	.0	.0	.2	.0	.1	.0	.0	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	3.8	.7	.0	.0	.0	5.6	.3	5.6	1.0	.0	.0	.0	7.2

PERIOD: (OVER-ALL) 1963-1972

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.7	4.5	.2	.0	.0	.0	5.3	2.0	2.4	.1	.0	.0	.0	4.4	
1-2	.7	12.1	3.3	.0	.0	.0	16.0	1.3	10.9	2.2	.0	.0	.0	14.3	
3-4	.2	5.8	3.4	.0	.0	.0	9.4	.7	4.6	3.5	.0	.0	.0	8.3	
5-6	.0	.4	.2	.0	.0	.0	.5	.0	.1	.2	.0	.0	.0	.8	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.6	22.7	7.0	.0	.0	.0	31.2	3.3	18.0	6.7	.0	.0	.0	28.2	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.1	.0	.0	.0	.0	1.1	.5	.7	.0	.0	.0	.0	1.2	
1-2	.2	3.0	.2	.0	.0	.0	3.5	.1	1.3	.0	.0	.0	.0	1.4	
3-4	.2	.0	1.1	.2	.0	.0	1.6	.0	.5	.0	.0	.0	.0	.5	
5-6	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.5	4.4	1.3	.2	.0	.0	6.4	.7	2.5	.0	.0	.0	.0	3.1	88.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	18.5	11.9	.2	.0	.0	.0	30.7	
1-2	4.0	35.1	6.3	.0	.0	.0	45.4	
3-4	.7	12.2	8.4	.2	.0	.0	21.5	
5-6	.0	.9	1.2	.0	.0	.0	2.1	
7	.0	.0	.2	.0	.0	.0	.2	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	23.2	60.2	16.4	.2	.0	.0	100.0	427

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
6	13.6	34.8	13.1	1.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	507	2
6-7	.1	2.7	3.3	2.1	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	74	4
8-9	.6	.9	.6	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25	3
10-11	.0	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	3
12-13	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	3
13-14	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDEX	18.9	4.0	1.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	197	1
TOTAL	269	345	152	32	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	810	2
PCT	33.2	42.6	19.8	4.0	1.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1922-1972  
(COVER-ALL) 1856-1972

JUNE

AREA 0006 NATUNA ISLAND  
3.6N 106.9E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	3.4	.0	.0	.0	.0	3.4	1.7	3.4	.0	.0	.0	.0	91.5
NE	6.0	.0	1.5	.0	.0	.0	.0	7.5	.0	3.0	.0	.0	.0	.0	89.6
E	2.0	1.5	1.0	.0	.0	.0	.0	4.5	4.0	.0	.0	.0	.0	.0	91.9
SE	3.3	2.4	.4	.0	.0	.0	.0	6.0	2.9	4.8	.0	.0	.0	.0	86.3
S	3.0	.7	.8	.0	.0	.0	.0	4.6	1.2	1.5	.2	.0	.2	.0	92.4
SW	2.5	1.4	1.2	.0	.0	.0	.0	5.2	3.7	2.0	.0	.0	.2	.0	88.9
W	5.2	6.3	3.3	.0	.0	.0	.0	14.8	3.5	3.7	.0	.0	.0	.0	78.0
NW	12.8	9.6	1.1	.0	.0	.0	.0	23.4	7.4	2.7	.0	.0	.0	.0	66.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	98.1
TOT PCT	3.1	1.7	1.1	.0	.0	.0	.0	5.9	2.5	2.2	.1	.0	.1	.0	89.3
TOT OBS:	1612														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	4.3	1.9	.6	.0	.0	.0	.0	6.9	3.0	.6	.2	.0	.2	.0	89.0
06009	3.6	1.5	1.3	.0	.0	.0	.0	6.3	2.5	.0	.0	.0	.0	.0	91.2
12015	1.4	1.4	2.0	.0	.0	.0	.0	4.9	2.9	3.4	.0	.0	.0	.0	88.8
18021	2.3	1.7	.6	.0	.0	.0	.0	4.7	1.5	5.8	.0	.0	.3	.0	87.8
TOT PCT TOT OBS:	3.1 1634	1.7	1.1	.0	.0	.0	.0	5.8	2.5	2.1	.1	.0	.1	.0	89.4

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FRPQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.6	.9	.1	.0	.0	.0	1.7	4.8	1.4	1.8	.7	2.8	2.2	2.2	1.4	2.4		
NE	.6	1.2	.1	.0	.0	.0	1.9	5.1	2.3	1.6	1.7	1.1	2.1	3.6	1.6	2.2		
E	.8	2.0	.1	.0	.0	.0	3.0	5.4	2.3	3.0	2.3	3.4	2.6	6.7	4.1	3.0		
SE	1.4	6.7	.9	.0	.0	.0	9.1	6.7	9.1	10.0	10.3	6.3	7.5	10.0	8.8	10.6		
S	3.8	23.4	7.0	.2	.0	.0	34.4	8.0	29.2	41.0	39.5	32.2	31.0	27.9	28.3	28.7		
SW	3.6	21.1	6.9	.3	.0	.0	31.4	8.3	28.5	29.9	30.5	36.0	33.1	39.7	31.6	30.4		
W	.9	4.4	2.0	.2	.0	.0	7.6	8.8	7.6	7.6	7.2	8.3	8.3	4.9	8.3	7.1		
NW	.7	2.0	.4	.1	.1	.0	3.3	7.5	2.0	2.5	3.5	7.0	3.8	4.9	3.3	4.6		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	7.6						7.6	.0	7.7	2.6	4.3	6.9	9.4	4.5	12.6	10.9		
TOT OBS	587	1791	495	21	2	0	2896	7.2	508	192	694	321	416	112	390	303		
TOT PCT	20.3	61.8	17.1	.7	.1	.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+	TOTAL OBS				00	06	12	18
N	1.3	.3	.0	.0	.0	1.7	4.8			1.5	1.4	2.2	1.8
NE	1.5	.3	.0	.0	.0	1.9	5.1			2.2	1.5	2.4	1.9
E	2.3	.7	.1	.0	.0	3.0	5.4			2.4	2.7	3.5	3.6
SE	5.3	3.5	.2	.0	.0	9.1	6.7			9.3	9.1	8.0	9.4
S	14.9	18.4	1.1	.1	.0	34.4	8.0			29.6	37.2	30.4	28.6
SW	11.9	18.2	1.3	.1	.0	31.4	8.3			28.8	32.3	37.7	31.1
W	2.8	4.3	.6	.0	.0	7.6	8.8			7.6	7.5	7.6	7.8
NW	1.8	1.3	.1	.1	.0	3.3	7.5			4.1	3.3	3.9	3.9
VAR	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0
CALM	7.6					7.6	.0			6.5	5.1	8.3	11.8
TOT OBS	1431	1361	99	5	0	2896	7.2			680	1015	528	693
TOT PCT	49.4	47.0	3.4	.2	.0	100.0				100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1850-1972

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	6.5	11.1	62.1	19.4	.9	.0	.0	7.6	100.0	660
06009	5.1	12.7	61.8	19.3	.9	.1	.0	7.6	100.0	1015
12015	8.3	11.4	61.7	18.0	.4	.0	.0	7.3	100.0	518
18021	11.8	15.0	61.8	10.7	.6	.1	.0	6.1	100.0	693
TOT	221	366	1791	495	21	2	0	7.2		2896
PCT	7.6	12.6	61.8	17.1	.7	.1	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.2	.5	.4	.4		5.1
NE	.7	.8	.6	.3		4.0
E	1.0	.8	.5	.5		3.7
SE	1.5	1.3	4.0	1.3		5.0
S	8.1	7.7	14.2	5.5		4.7
SW	5.0	7.8	12.7	6.3		5.1
W	.4	1.3	2.7	2.8		6.1
NW	.5	.4	1.3	.8		5.5
VAR	.0	.0	.0	.0		.0
CALM	2.4	2.4	3.0	.1		3.5
TOT OBS	200	231	397	180	1008	4.8
TOT PCT	19.8	22.9	39.4	17.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000 9999	10000 19999	20000 39999	30000 49999	40000 59999	50000 69999	60000 79999	70000 89999	80000 99999	ANY HGT ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.3	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	
NE	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	
E	.0	.0	.0	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	
SE	.0	.0	.2	.3	1.0	.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.8	
S	.0	.0	.3	1.1	2.3	2.7	.3	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	28.5	
SW	.0	.1	.3	1.9	4.1	2.2	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	22.0	
W	.3	.0	.4	1.1	.9	.2	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.8	
NW	.0	.0	.0	.6	.2	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.1	.2	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.6	
TOT OBS	3	1	13	59	98	62	16	6	3	2	744								1008	
TOT PCT	.3	.1	1.3	5.8	9.7	6.2	1.8	.6	.3	.2	73.8								100.0	

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NH) = OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.5	.5	.5	.5	.5	.5	.5	.5
= OR >5000	.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0
= OR >3500	2.4	2.8	2.8	2.8	2.8	2.8	2.8	2.8
= OR >2000	7.7	8.7	8.8	8.8	8.9	8.9	8.9	8.9
= OR >1000	14.7	17.4	18.6	18.6	18.7	18.7	18.7	18.7
= OR >600	18.3	22.3	24.2	24.3	24.4	24.4	24.4	24.4
= OR >300	19.0	23.3	25.6	25.6	25.7	25.7	25.7	25.7
= OR >150	19.1	23.4	25.7	25.7	25.8	25.8	25.8	25.8
= OR >0	19.1	23.6	26.0	26.0	26.1	26.1	26.1	26.1
TOTAL	194	240	264	264	265	265	265	265

TOTAL NUMBER OF OBS: 1016

PCT FREQ NH <5/8: 73.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
	5.2	13.8	23.3	19.4	11.6	6.1	7.1	5.5	7.9	.1	1106

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1856-1972

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.1	*	.0	.0	.1	.0	.0	.1	.0	.0	.2	
	TOT %	.1	.1	.0	.1	.1	.0	.0	.1	.0	.0	.4	
1/2<1	PCP	.0	.0	.0	.1	*	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	*	.1	.0	.0	.1	
	TOT %	.0	.0	.0	.1	*	.0	*	.1	.0	.0	.2	
1<2	PCP	.0	.0	.0	.0	*	.1	.0	.1	.0	.0	.2	
	NO PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.1	.1	.1	.0	.1	.0	.0	.3	
2<5	PCP	.0	*	.1	.1	.3	.4	.2	.1	.0	.0	1.3	
	NO PCP	.0	.0	.0	.1	.3	.3	.2	.1	.0	.1	1.1	
	TOT %	.0	*	.1	.2	.6	.7	.4	.2	.0	.1	2.4	
5<10	PCP	.0	.0	.0	.2	.8	.5	.4	.3	.0	.0	2.2	
	NO PCP	.2	*	.5	1.2	3.4	3.2	.8	.4	.0	.2	10.0	
	TOT %	.2	*	.5	1.4	4.2	3.7	1.2	.7	.0	.2	12.3	
10+	PCP	.1	.1	.1	.1	.4	.6	.4	.2	.0	.0	1.9	
	NO PCP	1.4	1.9	2.4	6.6	31.3	25.9	5.0	1.5	.0	6.4	82.5	
	TOT %	1.5	1.9	2.5	6.7	31.7	26.5	5.4	1.8	.0	6.4	84.4	
TOT OBS													1612
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	*	*	.0	*	.0	.0	.1	
	4-10	.1	*	.0	.0	*	.1	*	.0	.0	.0	.2	
	11-21	.0	*	.0	*	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.1	.0	*	.1	.1	*	*	.0	.0	.5	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	*	*	.0	.0	.0	.0	.0	*	
	11-21	.0	.0	.0	*	.0	*	*	.1	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	*	.0	*	.1	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	*	.1	.1	.0	*	.0	.0	.2	
	11-21	.0	.0	.0	.0	*	.1	*	*	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	*	
	TOT %	.0	.0	.0	*	.1	.1	*	.1	.0	.0	.4	
2<5	0-3	.0	.0	.0	*	.1	.1	.1	.0	.0	*	.4	
	4-10	*	.1	*	.1	.4	.2	.3	.1	.0		1.2	
	11-21	.0	.0	.0	*	.1	.3	.2	.1	.0		.8	
	22+	.0	.0	*	*	.0	.1	*	*	.0		.2	
	TOT %	*	.1	.1	.2	.6	.7	.6	.3	.0	*	2.6	
5<10	0-3	.1	*	.2	.2	.3	.2	*	*	.0	.2	1.4	
	4-10	.1	.0	.1	.8	2.2	2.0	.6	.5	.0		6.4	
	11-21	*	.0	*	.2	1.0	.8	.5	.1	.0		2.7	
	22+	.0	.0	.0	.0	.0	.1	.0	.0	.0		.1	
	TOT %	.3	*	.4	1.2	3.5	3.1	1.1	.6	.0	.2	10.6	
10+	0-3	.4	.4	.5	.9	2.7	2.7	.8	.4	.0	4.5	15.3	
	4-10	.9	1.2	1.8	5.4	21.9	19.8	3.5	1.2	.0		35.7	
	11-21	*	.0	.1	.6	6.7	5.6	1.3	.1	.0		14.4	
	22+	.0	.0	.0	.0	.2	.1	*	.0	.0		.3	
	TOT %	1.3	1.6	2.4	7.0	31.4	28.2	5.6	1.8	.0	6.5	85.7	
TOT OBS													2108
TOT PCT													100.0



## JUNE

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1856-1972

AREA 0006 NATUNA ISLAND  
3.6N 106.9E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH  $\geq 4/8$ ) AND  
OCCURRENCE OF NH  $\leq 5/8$  BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH $\leq 5/8$ ANY HGT	TOTAL OBS
00003	.0	.0	2.3	5.9	2.9	5.3	1.3	1.0	.0	.7	26.4	73.6	303
06009	.3	.3	.9	5.3	9.7	6.3	1.9	.9	.3	.0	25.9	74.1	320
12015	.9	.0	.9	5.0	11.1	7.1	2.2	.0	.9	.0	28.9	71.1	225
18021	.0	.0	.4	4.4	6.1	4.4	1.3	.0	.0	.0	16.6	83.4	229
TOT	3	1	13	58	100	62	18	6	3	2	266	811	1077
PCT	.3	.1	1.2	5.4	9.3	5.8	1.7	.6	.3	.2	24.7	75.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	$<1/2$	$1/2 < 1$	$1 < 2$	$2 < 5$	$5 < 10$	$10 < 20$	TOTAL OBS
00003	.5	.5	.2	3.1	11.1	84.6	551
06009	.0	.0	.4	2.1	7.4	90.1	679
12015	1.2	.0	.2	3.9	12.1	82.6	431
18021	.4	.2	.9	1.5	13.4	83.6	469
TOT	10	4	9	55	226	1826	2130
PCT	.5	.2	.4	2.6	10.6	85.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH  $\geq 4/8$ ) BY HOUR

HOUR (GMT)	$<150$ $<50YD$	$<600$ $<1$	$<1000$ $<5$	$1000 < 5000$ AND 5+	NH $\leq 5/8$ AND 5+	TOTAL OBS
00003	.0	2.9	11.5	16.7	71.9	288
06009	.3	1.3	9.5	18.0	72.5	305
12015	.9	1.5	9.0	22.3	68.7	211
18021	.0	.5	6.6	12.7	80.7	212
TOT	3	18	95	177	744	1016
PCT	.3	1.8	9.4	17.4	73.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	.1	.0	.0	.0	.0	1	.1
90/94	.0	.0	.0	.1	1.5	1.4	.3	.0	31	3.3
85/89	.0	.0	.0	.0	4.2	18.6	6.0	1.6	269	30.4
80/84	.0	.0	.0	.1	.4	27.8	28.4	4.8	591	62.1
75/79	.0	.0	.0	.0	.0	.0	1.9	2.3	40	4.2
TOTAL	0	0	0	3	63	453	348	83	952	100.0
PCT	.0	.0	.0	.3	6.6	47.8	36.6	8.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
90/94	.0	.1	.1	.3	1.2	.9	.0	.0	.0	.6
85/89	.0	.8	.4	2.7	11.8	9.7	1.3	.3	.0	2.8
80/84	.9	1.4	1.9	4.6	22.3	19.4	4.9	1.8	.0	4.8
75/79	.0	.1	.2	.2	.6	1.4	1.1	.5	.0	.1
TOTAL	1.4	2.4	2.6	7.8	36.0	31.4	7.2	2.6	.0	6.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	97	92	89	84	79	75	73	83.6	661
06009	97	92	90	85	79	77	73	84.7	993
12015	90	89	87	83	79	77	75	83.2	529
18021	90	86	85	83	79	75	73	82.5	694
TOT	97	91	88	84	79	76	73	83.7	2877

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

hour (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	1.5	41.8	45.1	11.7	81	273
06009	.0	1.1	18.6	52.6	24.1	3.6	76	274
12015	.0	.0	2.0	52.7	36.3	9.0	80	201
18021	.0	.0	1.8	42.8	43.7	11.7	81	222
TOT	0	3	63	459	359	86	79	970

JUNE

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1956-1972AREA 0006 NATUNA ISLAND  
3.6N 106.9E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	>92	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.1	.0	.0	2	.0	.1
9/10	.0	.0	.0	.0	.0	.2	3	.0	.2
7/8	.0	.0	.1	.1	.5	.2	13	.0	.9
6	.0	.0	.0	.0	.3	.0	4	.0	.3
5	.0	.1	.0	.7	1.5	.1	38	.0	2.4
4	.0	.1	.5	1.9	2.0	.1	70	.1	4.6
3	.0	.0	.2	.7	1.2	.0	32	.0	2.1
2	.0	.1	3.6	5.3	1.9	.0	149	.0	9.8
1	.0	.1	1.3	3.4	.0	.0	72	.0	4.7
0	.0	.2	12.6	8.4	.0	.0	321	.1	21.1
-1	.0	.0	6.5	3.3	.0	.0	149	.0	9.8
-2	.1	.7	15.7	1.8	.0	.0	277	.0	18.2
-3	.0	.7	5.5	.6	.0	.0	165	.0	6.9
-4	.1	1.4	8.1	.3	.0	.0	151	.0	9.9
-5	.2	1.0	2.2	.1	.0	.0	53	.0	3.5
-6	.0	1.1	1.0	.1	.0	.0	32	.0	2.1
-7/-8	.3	1.1	.9	.0	.0	.0	35	.0	2.3
-9/-10	.1	.5	.1	.0	.0	.0	9	.0	.6
-11/-13	.2	.2	.0	.0	.0	.0	6	.0	.4
TOTAL	14		884		95		1519	1	318
PCT	.9	7.1	98.2	26.9	6.3	.6	100.0	.1	99.9

PERIOD: (OVER-ALL) 1953-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.5
1-2	.0	.7	.0	.0	.0	.0	.7	.0	.7	.0	.0	.0	.0	.7
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.7	.0	.0	.0	.0	.7	.0	1.2	.0	.0	.0	.0	1.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.2	.0	.0	.0	.0	.7	.2	.1	.0	.0	.0	.0	.3
1-2	.0	1.1	.0	.0	.0	.0	1.1	.5	3.6	.1	.0	.0	.0	4.2
3-4	.0	.4	.4	.0	.0	.0	.8	.2	.4	1.1	.0	.0	.0	1.8
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	1.7	.4	.0	.0	.0	2.6	1.0	4.1	1.2	.0	.0	.0	6.3

PERIOD: (OVER-ALL) 1963-1972

JUNE

AREA 0006 NATUNA ISLAND  
3.6N 106.9E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
C1	.4	3.1	.2	.0	.0	.0	3.8	.3	1.9	.2	.0	.0	.0	2.4
1-2	.6	11.1	3.6	.0	.0	.0	15.3	2.0	12.3	3.2	.0	.0	.0	17.5
3-4	.2	6.8	3.7	.2	.0	.0	10.9	.3	5.1	5.1	.0	.0	.0	10.5
5-6	.0	.4	2.0	.0	.0	.0	2.5	.0	.5	3.1	.0	.0	.0	3.6
7	.0	.0	.7	.0	.0	.0	.7	.0	.0	.4	.0	.0	.0	.4
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.2	21.4	10.3	.2	.0	.0	33.2	2.6	19.8	12.0	.0	.0	.0	34.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
C1	.2	.5	.0	.0	.0	.0	.7	.3	.0	.0	.0	.0	.0	.8	
1-2	.2	2.4	.5	.0	.0	.0	3.1	.2	.0	.0	.0	.0	.0	1.1	
3-4	.0	1.6	1.0	.0	.0	.0	3.5	.0	.0	.0	.0	.0	.0	.2	
5-6	.0	.0	.7	.0	.0	.0	.7	.0	.0	.0	.0	.2	.0	.2	
7	.0	.0	.4	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	4.5	3.3	.0	.0	.0	8.3	.5	1.6	.0	.0	.2	.0	2.4	85.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
C1	12.9	6.7	.5	.0	.0	.0	20.0	DBS
1-2	3.6	32.9	7.4	.0	.0	.0	43.9	
3-4	.7	14.6	12.2	.2	.0	.0	27.7	
5-6	.0	1.0	5.7	.0	.2	.0	6.9	
7	.0	.0	1.4	.0	.0	.0	1.4	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	17.2	55.1	27.2	.2	.2	.0	100.0	419

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	2-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-45	46-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	7.3	33.7	19.4	4.7	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	522	2
6-7	.4	2.2	4.6	6.3	1.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	118	4
8-9	.0	.4	.4	.5	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	5
10-11	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	2
12-13	.0	.0	.2	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	5
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDEX	11.6	2.8	1.6	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	135	1
TOTAL	136	320	212	100	20	2	0	0	0	0	0	0	0	0	0	0	0	0	0	810	2
PCT	16.3	39.5	26.2	12.3	2.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1923-1972  
(OVER-ALL) 1855-1972

JULY

AREA 0006 NATUNA ISLAND  
3.6N 107.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WNO DIR	PRECIPITATION TYPE							OTHER WEATHER PH NOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SM, VE 'ZE	SPRAY BLWG DUST	NO SIG WEA
N	8.2	9.4	7.1	.0	.0	.0	.0	21.2	3.5	.0	.0	.0	.0	.0	75.3
NE	.0	12.9	.0	.0	.0	.0	.0	12.9	.0	6.5	.0	.0	.0	.0	80.6
E	.0	.0	.0	.0	.0	.0	.0	.0	3.7	.0	.0	.0	.0	.0	90.3
SE	.5	1.4	.2	.0	.0	.0	.0	2.1	.0	3.7	.0	.0	.0	.0	94.3
S	1.5	.6	.5	.0	.0	.0	.0	2.7	1.3	3.1	.2	.0	.2	.0	92.8
SW	2.4	1.0	1.5	.0	.0	.0	.0	4.7	3.1	3.4	.0	.0	.0	.0	88.9
W	9.5	4.0	1.7	.0	.0	.0	.0	15.2	5.1	.8	.0	.0	.6	.0	78.3
NW	8.8	5.3	1.8	.0	.0	.0	.0	14.9	1.8	.0	.0	.0	.0	.0	83.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.7	3.4	.0	.0	.0	.0	.0	5.2	.0	1.7	.0	.0	5.2	.0	87.9
TOT PCT	2.6	1.5	1.0	.0	.0	.0	.0	4.9	2.1	2.9	.1	.0	.3	.0	89.8
TOT OBS:	1516														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLNG	DUST SNOW	NO SIG WEA
00003	3.1	1.0	1.7	.0	.0	.0	.0	5.3	3.6	1.4	.0	.0	.7	.0	.0	89.2
06009	3.7	1.1	.9	.0	.0	.0	.0	5.7	2.1	.0	.0	.0	.2	.0	.0	92.0
12015	2.2	1.9	.8	.0	.0	.0	.0	5.0	1.7	3.9	.0	.0	.3	.0	.0	85.3
18021	.6	2.2	.3	.0	.0	.0	.0	3.1	.6	7.5	.3	.0	.0	.0	.0	88.8
TOT PCT TOT OBS:	2.5 1539	1.5	1.0	.0	.0	.0	.0	4.9	2.1	2.9	.1	.0	.3	.0	.0	89.9

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.5	.7	.2	.0	.0	.0	1.3	5.6	.7	.8	.8	1.6	2.5	.5	1.7	1.2		
NE	.2	.6	.1	.0	.0	.0	.9	6.0	.6	.8	.9	.5	1.5	.5	1.6	.0		
E	.3	1.2	.1	.0	.0	.0	1.6	6.0	3.1	1.4	1.4	1.3	.7	3.4	1.5	.9		
SE	1.1	4.9	1.4	.1	.0	.0	7.5	7.5	7.3	7.7	7.4	7.5	7.0	5.0	8.9	8.0		
S	2.3	24.5	13.3	.4	.0	.0	40.6	9.7	40.6	47.4	44.9	38.4	35.8	39.4	35.9	43.6		
SW	2.3	21.5	10.1	.7	.0	.0	34.5	9.4	34.3	35.8	32.7	35.4	35.0	38.9	34.7	35.2		
W	.8	4.2	1.9	.2	.0	.0	7.0	9.1	6.2	4.7	6.2	8.3	9.7	11.3	6.1	5.9		
NW	.4	1.4	.4	.0	.0	.0	2.3	7.9	.9	.6	2.3	3.8	3.6	1.0	2.6	1.7		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	4.3						4.3	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT OBS	338	1624	758	37	0	0	2757		8.8	475	123	661	306	411	104	387	290	
TOT PCT	12.3	58.9	27.9	1.3	.0	.0	100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	06	12	18
N	.8	.4	.0	.0	.0	.0	1.3	.7	1.1	2.1	1.5
NE	.6	.2	.0	.0	.0	.0	.9	.7	.7	1.3	.9
E	1.1	.5	.0	.0	.0	.0	1.6	2.8	1.4	1.3	1.2
SE	3.7	3.5	.3	.0	.0	.0	7.5	7.4	7.4	6.6	8.5
S	10.8	26.3	3.4	.1	.0	.0	40.6	42.0	42.8	36.6	39.2
SW	10.4	21.5	2.6	.0	.0	.0	34.5	34.6	33.5	35.8	34.9
W	2.7	3.5	.8	.0	.0	.0	7.0	5.9	6.9	10.0	6.0
NW	1.2	.9	.2	.0	.0	.0	2.3	.8	2.7	3.1	2.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.3						4.3	5.2	3.4	3.3	5.5
TOT OBS	982	1569	201	5	0	2757		598	967	515	677
TOT PCT	35.6	56.9	7.3	.2	.0		100.0	100.0	100.0	100.0	100.0

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TABLE 4

## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+			
0000	5.2	6.4	56.0	31.8	.7	.0	.0	8.9	100.0	598
0600	3.4	7.8	56.2	31.3	1.3	.0	.0	9.2	100.0	967
1200	3.3	9.3	61.2	24.3	1.9	.0	.0	8.7	100.0	515
1800	5.5	8.7	63.7	20.7	1.5	.0	.0	8.1	100.0	677
TOT	118	220	1624	758	37	0	0	8.8		2757
PCT	4.3	8.0	58.9	27.5	1.3	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL CLOUD OBS	MEAN CLOUD COVER
N	.1	.4	.6	.4		5.6
NE	.4	.6	.5	.1		4.9
E	.8	.5	.8	.2		4.0
SE	2.3	2.0	2.1	.8		4.1
S	7.2	10.4	16.5	6.1		4.8
SW	4.3	5.6	14.8	8.4		5.5
W	.4	.8	3.1	3.1		6.2
NW	.0	.3	1.0	.7		6.4
VAR	.0	.0	.0	.0		.0
CALM	1.9	1.5	1.4	.4		3.6
TOT OBS	16.8	21.8	40.1	19.8	985	4.0
TOT PCT	17.1	22.1	40.7	20.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	1.0	
NE	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.9	
E	.0	.0	.0	.1	.3	.2	.0	.0	.0	.0	1.7	
SE	.0	.0	.0	.3	.4	.3	.0	.1	.0	.0	5.9	
S	.1	.0	.3	1.3	3.9	2.3	.5	.2	.0	.0	31.5	
SW	.1	.0	1.2	2.2	4.1	2.4	1.4	.7	.0	.0	21.0	
W	.0	.1	.0	1.3	1.8	.7	.0	.1	.0	.0	3.5	
NW	.0	.0	.0	.2	.5	.1	.0	.0	.0	.0	1.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.1	.1	.2	.0	.0	.0	.1	.0	4.8	
TOT OBS	2	1	16	58	114	39	20	10	1	0	704	985
TOT PCT	.2	.1	1.6	5.9	11.6	6.0	2.0	1.0	.1	.0	71.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.1	.1	.1	.1	.1	.1	.1	.1
>5000	1.1	1.2	1.3	1.3	1.3	1.3	1.3	1.3
>3500	2.0	3.1	3.4	3.4	3.4	3.4	3.4	3.4
>2000	7.4	8.7	9.2	9.2	9.2	9.2	9.2	9.2
>1000	16.7	20.0	20.7	20.7	20.7	20.7	20.7	20.7
>600	20.2	25.0	26.0	26.4	26.5	26.5	26.5	26.5
>300	21.3	26.2	27.6	28.0	28.1	28.1	28.1	28.1
>150	21.3	26.3	27.7	28.1	28.2	28.2	28.2	28.2
>0	21.4	26.4	27.8	28.2	28.4	28.4	28.4	28.4
TOTAL	214	265	279	283	285	285	285	285

TOTAL NUMBER OF OBS: 1002

PCT FREQ NH &lt;5/8: 71.6

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	9	TOTAL
											OBS
	4.6	19.0	21.3	19.8	11.9	9.6	7.0	5.0	7.1	.2	1078

PERIOD: (PRIMARY) 1923-1972  
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.1	.1	.2	.0	.0	.0	.3	.3
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.1	.1	.2	.0	.0	.0	.3	.3
1<2	PCP	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.3	.3
	NO PCP	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	.2
	TOT %	.0	.0	.0	.0	.1	.1	.2	.0	.0	.0	.5	.5
2<5	PCP	.1	.0	.0	.0	.0	.2	.2	.1	.0	.0	.6	.6
	NO PCP	.1	.0	.0	.0	.3	.3	.1	.1	.0	.0	1.2	1.2
	TOT %	.1	.0	.0	.0	.3	.5	.3	.2	.0	.0	1.8	1.8
5<10	PCP	.1	.1	.0	.0	.7	.7	.3	.2	.0	.0	2.3	2.3
	NO PCP	.1	.2	.2	1.1	5.0	4.1	1.0	.1	.0	.1	11.9	11.9
	TOT %	.2	.3	.2	1.1	5.8	4.7	1.3	.3	.0	.1	14.2	14.2
10+	PCP	.1	.1	.0	.1	.3	.4	.2	.0	.0	.0	1.5	1.5
	NO PCP	1.0	.7	1.6	5.9	34.6	27.5	9.6	1.4	.0	3.5	81.7	81.7
	TOT %	1.1	.7	1.6	6.0	34.9	28.1	9.8	1.4	.0	3.5	83.2	83.2
TOT OBS													1516
TOT PCT		1.4	1.0	1.8	7.2	41.2	33.8	7.8	1.9	.0	3.8	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	TOT %	.0	.0	.0	.0	.1	.1	.1	.0	.0	.0	.3	.3
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	4-10	.0	.0	.0	.0	.1	.1	.1	.0	.0	.0	.3	.3
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.1	.2	.2	.0	.0	.0	.5	.5
2<5	0-3	.0	.0	.0	.0	.1	.0	.1	.0	.0	.1	.4	.4
	4-10	.0	.0	.0	.0	.3	.4	.2	.0	.0	.0	1.0	1.0
	11-21	.0	.0	.0	.0	.1	.2	.2	.1	.0	.0	.6	.6
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.0	.1	.0	.4	.7	.5	.1	.0	.1	2.1	2.1
5<10	0-3	.0	.0	.1	.1	.2	.3	.1	.0	.0	.4	1.3	1.3
	4-10	.1	.2	.0	.3	2.5	2.2	.5	.1	.0	.0	6.2	6.2
	11-21	.1	.0	.0	.3	1.6	1.3	.5	.1	.0	.0	3.9	3.9
	22+	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.3	.3
	TOT %	.2	.2	.1	.9	4.6	3.9	1.1	.3	.0	.4	11.8	11.8
10+	0-3	.3	.2	.0	.6	1.5	1.7	.8	.4	.0	3.5	9.0	9.0
	4-10	.5	.4	1.0	4.6	23.1	19.0	3.3	.8	.0	.0	32.9	32.9
	11-21	.1	.1	.2	1.0	11.5	8.5	1.3	.2	.0	.0	22.8	22.8
	22+	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.5	.5
	TOT %	.9	.7	1.3	6.3	36.3	29.5	5.4	1.4	.0	3.5	85.2	85.2
TOT OBS													2027
TOT PCT		1.2	.9	1.5	7.2	41.6	34.4	7.4	1.9	.0	4.0	100.0	

PERIOD: (PRIMARY) 1923-1972  
(OVER-ALL) 1855-1972

JULY

AREA 0006 NATUNA ISLAND  
3.6N 107.0E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH < 5/8 ANY HGT	TOTAL OBS
00003	.3	.0	.7	3.8	10.0	5.5	2.4	.7	.0	.0	23.4	76.6	291
06009	.0	.0	1.3	5.6	11.1	7.2	2.3	.3	.0	.0	27.9	72.1	305
12015	.0	.0	2.8	9.6	11.6	4.4	2.0	1.6	.0	.0	31.9	68.1	251
18021	.5	.5	1.5	3.4	11.2	4.9	1.0	2.4	.5	.0	25.9	74.1	205
TOT	2	1	16	59	115	59	21	12	1	0	286	766	1052
PCT	.2	.1	1.5	5.6	10.9	5.6	2.0	1.1	.1	.0	27.2	72.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	< 1/2	1/2 < 1	1 < 2	2 < 5	5 < 10	10+	TOTAL OBS
00003	.2	.2	.4	1.2	13.4	84.6	514
06009	.0	.3	1.1	2.0	9.4	87.2	446
12015	.0	.7	.2	3.0	12.0	84.1	433
18021	.2	.0	.2	2.2	12.5	84.9	457
TOT	2	6	11	42	239	1750	2050
PCT	.1	.3	.5	2.0	11.7	85.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET) NH > 4/8) BY HOUR

HOURL (GMT)	< 150 < 5000	< 600 < 1	< 1000 < 5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL OBS
00003	.4	1.1	5.8	18.7	75.5	278
06009	.0	1.4	8.6	20.5	70.9	292
12015	.0	3.3	13.8	20.0	66.3	240
18021	.5	2.6	7.8	20.8	71.4	192
TOT	2	20	89	200	713	1002
PCT	.2	2.0	8.9	20.0	71.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.3	1.3	.5	.2	.0	22	2.4
85/89	.0	.0	.0	.2	3.1	11.0	3.6	.5	171	18.5
80/84	.0	.0	.0	.0	2.1	33.7	32.3	5.4	678	73.4
75/79	.0	.0	.0	.0	.0	1.0	2.4	1.9	49	5.3
70/74	.0	.0	.0	.0	.0	.0	.2	.2	4	.4
TOTAL	0	0	0	5	60	427	357	75	924	100.0
PCT	.0	.0	.0	.5	6.5	46.2	38.6	8.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90	.0	.1	.2	.3	1.3	.5	.0	.0	.0	.0
85	.3	.2	.2	1.3	8.1	6.2	1.2	.2	.0	.5
80	.7	.7	1.2	5.3	29.0	23.6	6.3	1.8	.0	4.8
75	.3	.0	.1	.8	1.2	2.1	1.2	.4	.0	.0
70	.0	.0	.0	.0	.0	.1	.3	.8	.0	.0
TOT	1.3	.9	1.7	7.2	39.6	32.6	9.0	2.4	.0	5.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	97	91	87	83	79	77	74	83.0	599
06009	95	91	89	84	79	75	72	84.2	953
12015	90	88	86	82	79	76	73	82.5	522
18021	88	86	84	82	79	76	73	82.2	473
TOT	97	90	88	83	79	76	72	83.1	2747

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	.0	.0	.0	.0	.0	.0	249
06009	.0	1.3	15.3	52.0	28.8	4.4	.7	.7	76	271
12015	.0	.4	2.8	48.7	40.9	7.3	.8	.8	80	232
18021	.0	.0	1.0	39.3	45.5	14.1	.8	.8	191	
TOT	0	5	60	437	365	76	79	79	943	

PERIOD: (PRIMARY) 1923-1972  
(OVER-ALL) 1855-1972

JULY

AREA 0006 NATUNA ISLAND  
3.6N 107.0E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	N FOG	WD FOG
11/13	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
9/10	.0	.0	.0	.0	.1	.1	.1	4	.0	.3
7/8	.0	.0	.0	.0	.2	.6	.2	15	.0	1.0
6	.0	.0	.0	.1	.1	.3	.0	6	.0	.4
5	.0	.0	.1	.3	.7	1.1	.0	31	.0	2.2
4	.0	.0	.0	.5	2.4	.8	.0	49	.0	3.4
3	.0	.0	.0	.3	1.1	.2	.0	23	.0	1.6
2	.0	.0	.0	3.9	4.8	.3	.0	130	.0	9.0
1	.0	.0	.1	2.4	1.9	.0	.0	63	.0	4.4
0	.0	.1	.3	20.1	4.0	.0	.0	352	.0	24.4
-1	.0	.0	.2	11.2	.9	.0	.0	178	.0	12.4
-2	.0	.1	1.2	18.3	.8	.0	.0	265	.0	13.3
-3	.0	.0	1.5	5.8	.3	.0	.0	108	.1	7.4
-4	.0	.1	1.9	5.3	.1	.0	.0	105	.0	7.3
-5	.0	.2	1.9	1.0	.0	.0	.0	53	.0	3.7
-6	.0	.1	.8	.3	.0	.0	.0	14	.0	1.0
-7/-8	.0	.2	1.0	.7	.0	.0	.0	27	.0	.9
-9/-10	.1	.1	.3	.1	.0	.0	.0	9	.0	.8
-11/-13	.1	.4	.0	.0	.0	.0	.0	7	.0	.5
TOTAL	2	17	130	994	248	45	5	1441	1	1440
PCT	.1	1.2	9.0	69.0	17.2	3.1	.3	100.0	.1	99.9

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
1-2	.0	.0	.2	.0	.0	.0	.2	.0	.4	.0	.0	.0	.0	.4
3-4	.0	.2	.2	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.2	.4	.0	.0	.0	.6	.0	.7	.0	.0	.0	.0	.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.2	.0	.0	.0	.0	.4	.4	.0	.0	.0	.0	.0	.4
1-2	.0	.9	.0	.0	.0	.0	.9	.3	2.7	.8	.0	.0	.0	3.8
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.6	.4	.0	.0	.0	1.0
5-6	.0	.0	.2	.0	.0	.0	.2	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	1.1	.2	.0	.0	.0	1.9	.7	3.3	1.3	.0	.0	.0	5.3



PERIOD: (OVER-ALL) 1963-1972

JULY  
TABLE 18 (CONT)

AREA 0006 NATUNA ISLAND  
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PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.9	.2	.0	.0	.0	2.6	.7	1.2	.2	.0	.0	.0	2.1
1-2	.2	10.3	6.4	.0	.0	.0	16.9	1.3	9.7	3.9	.0	.0	.0	14.9
3-4	.2	7.1	9.1	.2	.0	.0	16.6	.1	4.4	4.9	.2	.0	.0	9.6
5-6	.0	1.1	5.7	.0	.0	.0	6.8	.0	1.0	3.1	.0	.0	.0	4.1
7	.0	.0	1.0	.2	.0	.0	1.2	.0	.0	.6	.2	.0	.0	.8
8-9	.0	.0	.5	.0	.0	.0	.5	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	20.4	23.0	.4	.0	.0	44.7	2.1	16.2	12.9	.4	.0	.0	31.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.8	2.2	.0	.0	.0	.0	3.1	.0	.5	.0	.0	.0	.0	.5	
1-2	.2	2.2	1.7	.0	.0	.0	4.2	.0	.4	.2	.0	.0	.0	.7	
3-4	.0	1.0	2.1	.0	.0	.0	3.1	.0	.0	.1	.0	.0	.0	.1	
5-6	.0	.2	.2	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.1	5.6	4.2	.0	.0	.0	10.9	.0	1.0	.3	.0	.0	.0	1.3	96.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.1	6.3	.4	.0	.0	.0	12.8	
1-2	2.0	20.7	13.2	.0	.0	.0	41.9	
3-4	.2	13.2	16.8	.4	.0	.0	30.7	
5-6	.0	2.2	9.4	.0	.0	.0	11.7	
7	.0	.0	1.8	.4	.0	.0	2.2	
8-9	.0	.0	.7	.0	.0	.0	.7	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.3	48.4	42.4	.4	.0	.0	100.0	446

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	6.4	30.1	20.0	6.7	.9	.2	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	516
6-7	.1	1.6	7.0	5.7	1.9	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	136
8-9	.0	.2	.9	1.0	.8	.2	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	26
10-11	.0	.1	.1	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4
12-13	.0	.0	.4	.1	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6
>13	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2
INDET	8.6	2.8	2.0	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	111
TOTAL	121	278	243	113	30	9	2	3	1	1	0	0	0	0	0	0	0	0	0	0	801
PCT	13.1	34.7	30.3	14.1	3.7	1.1	.2	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1923-1972  
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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DR7L	FR7G	SNOW	OTHER	HAIR	PCPN AT	PCPN PAST	THDR	FOG	FOG WD	SMOKE	SPRAY	NO	SIG
				PCPN		FRZN		OB TIME	HR	LTNG	WD	PCPN	HAZE	BLWG	DUST	WEA
						PCPN					PCPN	PAST HR		BLWG	SNOW	
N	9.5	.0	.0	.0	.0	.0	.0	9.5	11.1	12.7	.0	.0	.0	.0	.0	73.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	10.1	.0	.0	.0	.0	.0	.0	89.9
E	2.4	1.8	.0	.0	.0	.0	.0	4.3	.0	.0	.0	.0	.0	.0	.0	95.7
SE	3.0	.2	.0	.0	.0	.0	.0	3.2	.9	.9	.0	.0	.0	.0	.0	95.0
S	2.2	.7	.0	.0	.0	.0	.0	2.9	1.6	.7	.0	.0	.3	.0	.0	94.5
SW	2.0	1.7	.4	.0	.0	.0	.0	4.0	2.0	.7	.0	.0	.2	.0	.0	93.0
W	4.6	4.0	.8	.0	.0	.0	.0	9.4	5.6	.0	.0	.0	.0	.0	.0	85.1
NW	14.4	3.8	7.7	.0	.0	.0	.0	26.0	11.5	3.8	.0	.0	.0	.0	.0	58.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.3	.0	.0	.0	.0	.0	.0	3.3	6.7	3.3	.0	.0	.0	.0	.0	86.7
TOT PCT	2.7	1.3	.3	.0	.0	.0	.0	4.3	2.6	.9	.0	.0	.2	.0	.0	92.0
TOT OBS:	1520															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DR7L	FR7G	SNOW	OTHER	HAIR	PCPN AT	PCPN PAST	THDR	FOG	FOG WD	SMOKE	SPRAY	NO	SIG
				PCPN		FRZN		OB TIME	HR	LTNG	WD	PCPN	HAZE	BLWG	DUST	WEA
						PCPN					PCPN	PAST HR		BLWG	SNOW	
0000	3.1	.9	.5	.0	.0	.0	.0	4.5	2.8	.2	.0	.0	.2	.0	.0	92.3
0600	2.7	2.0	.2	.0	.0	.0	.0	4.9	2.2	.0	.0	.0	.0	.0	.0	92.9
1200	2.5	1.4	.3	.0	.0	.0	.3	4.5	3.4	.8	.0	.0	.3	.0	.0	91.0
1800	2.2	.6	.3	.0	.0	.0	.0	3.1	1.6	3.1	.0	.0	.3	.0	.0	92.2
TOT PCT	2.6	1.3	.3	.0	.0	.0	.1	4.3	2.3	.9	.0	.0	.2	.0	.0	92.1
TOT OBS:	1548															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)								HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+	TOTAL	PCT	00	03	06	09	12	15	18	21
							OBS	FREQ								
								SPD								
N	.3	.6	.1	.0	.0	.0	1.0	5.7	1.0	1.3	1.6	.9	1.1	.0	.3	.5
NE	.5	.6	.1	.0	.0	.0	1.2	5.2	1.5	2.1	1.0	.4	.5	.3	.8	1.2
E	.6	1.5	.1	.0	.0	.0	2.2	5.6	2.9	2.8	2.3	1.5	1.2	2.5	2.4	2.0
SE	1.0	5.3	1.1	.0	.0	.0	7.4	7.4	6.4	8.1	6.4	7.7	6.7	12.4	9.4	7.4
S	2.2	22.7	10.0	.3	.0	.0	35.2	9.2	37.0	39.2	38.1	38.5	28.9	38.6	31.9	33.2
SW	2.1	23.1	12.1	.4	.0	.0	37.7	9.5	37.5	37.3	36.2	38.8	40.5	36.1	35.4	40.2
W	1.1	4.7	1.8	.2	.0	.0	7.9	8.6	7.4	5.9	7.5	7.6	10.2	4.5	7.3	9.6
NW	.4	1.2	.3	.1	.0	.0	2.0	7.7	2.8	2.5	1.5	1.1	3.0	2.0	2.3	.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.4						5.4	.0	3.5	.8	4.8	3.6	7.9	1.0	10.2	5.1
TOT OBS	386	1689	723	28	1	0	2827	8.5	508	116	673	309	428	101	394	296
TOT PCT	13.7	59.7	25.6	1.0	.0	.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					41+	TOTAL	PCT	MEAN	HOUR (GMT)			
	0-6	7-16	17-27	28-40						00	06	12	18
							OBS	FREQ	SPD	03	09	15	21
N	.7	.3	.1	.0	.0	.0	1.0	5.7	1.0	1.4	.9	.4	
NE	.9	.3	.0	.0	.0	.0	1.2	5.2	1.6	1.2	1.0	1.0	
E	1.5	.6	.0	.0	.0	.0	2.2	5.6	2.9	2.1	1.5	2.2	
SE	3.5	3.6	.3	.0	.0	.0	7.4	7.4	6.7	6.8	7.8	8.6	
S	9.9	23.2	2.1	.1	.0	.0	35.2	9.2	37.4	38.2	30.8	32.5	
SW	10.6	24.7	2.4	.1	.0	.0	37.7	9.5	37.5	37.0	39.7	37.5	
W	3.4	3.7	.7	.1	.0	.0	7.9	8.6	7.1	7.6	9.1	8.3	
NW	1.2	.5	.2	.0	.0	.0	2.0	7.7	2.8	1.4	2.8	1.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	5.4						5.4	.0	3.0	4.4	6.6	8.0	
TOT OBS	1048	1608	165	6	0	2827		8.5	626	982	329	690	
TOT PCT	37.1	56.9	5.8	.2	.0	100.0			100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1923-1972  
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	3.0	9.3	59.3	27.5	.8	.2	.0	8.6	100.0	620
06009	4.4	9.0	57.2	28.4	1.0	.0	.0	8.8	100.0	982
12015	6.6	5.7	63.1	23.1	1.3	.0	.0	8.4	100.0	529
18021	8.0	8.4	61.2	21.7	.7	.0	.0	7.9	100.0	690
TOT	152	234	1689	723	28	1	0	8.5		2827
PCT	5.4	8.3	59.7	25.6	1.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & CLOUDS	TOTAL OBS	MEAN CLOUD COVER
N	.1	.1	.5	.3		6.0
NE	.4	.1	.8	.3		5.2
E	.5	.4	1.2	.3		5.0
SE	1.8	1.9	1.9	.9		4.3
S	6.5	9.3	15.0	6.0		4.9
SW	5.3	8.6	16.0	8.0		5.3
W	.6	1.6	4.0	3.1		6.0
NW	.0	.2	.7	.8		6.8
VAR	.0	.0	.0	.0		.0
CALM	1.5	.8	1.6	1.1		4.7
TOT OBS	171	215	428	212	1026	5.1
TOT PCT	16.7	21.0	41.7	20.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NM <5/8 ANY HGT	TOTAL OBS
149	290	999	999	1999	3499	4999	6499	7999			
.0	.0	.0	.0	.2	.1	.1	.1	.0	.0	.5	
.0	.0	.2	.2	.3	.0	.0	.0	.0	.0	.8	
.1	.0	.0	.0	.3	.2	.1	.0	.0	.0	1.8	
.0	.0	.1	.3	.5	.1	.1	.4	.0	.0	5.1	
.1	.2	.5	1.5	4.2	1.6	1.2	.0	.2	.0	27.4	
.2	.4	2.2	4.0	2.3	1.1	.0	.1	.0	.0	25.4	
.2	.0	.2	.8	1.0	.7	.4	.2	.1	.1	5.7	
.0	.0	.0	.4	.5	.2	.0	.1	.0	.0	.4	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.4	.5	.4	.0	.1	.0	.0	3.5	
.6	.2	1.4	5.9	11.9	5.7	3.1	1.0	.3	.1	72.4	1026
.6	.2	1.4	5.8	11.6	5.6	3.0	1.0	.3	.1	70.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	>10	>5	>2	VSBY (NM) >1	>1/2	>1/4	>50YD	>0
>6500	.3	.4	.4	.4	.4	.4	.4	.4
>5000	1.1	1.8	1.3	1.3	1.3	1.3	1.3	1.3
>3500	3.8	4.5	4.5	4.5	4.5	4.5	4.5	4.5
>2000	7.7	10.0	10.1	10.1	10.1	10.1	10.1	10.1
>1000	15.5	21.1	21.6	21.6	21.6	21.6	21.6	21.6
>600	19.2	26.0	27.2	27.2	27.3	27.3	27.3	27.3
>300	19.9	27.0	28.4	28.4	28.5	28.5	28.5	28.5
>150	20.0	27.2	28.6	28.6	28.7	28.7	28.7	28.7
>0	20.3	27.5	29.0	29.0	29.1	29.2	29.3	29.3
TOTAL	212	287	303	303	304	305	306	306

TOTAL NUMBER OF OBS: 1044

PCT FREQ NM <5/8: 70.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
9.8	12.3	23.3	16.8	12.0	9.1	7.1	6.4	6.8	.4	1112

PERIOD: (PRIMARY) 1923-1972  
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.3	
1/2<1	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.1	.0	.0	.1	
2<5	PCP	.1	.0	.0	.0	.2	.4	.1	.0	.0	.1	.8	
	NO PCP	.0	.0	.1	.0	.3	.5	.2	.0	.0	.0	1.2	
	TOT %	.1	.0	.1	.0	.5	.9	.3	.0	.0	.1	2.0	
5<10	PCP	.0	.0	.0	.1	.3	.4	.2	.2	.0	.0	1.2	
	NO PCP	.0	.1	.2	.9	5.5	5.1	1.5	.2	.0	.5	14.1	
	TOT %	.0	.1	.2	1.0	5.8	5.5	1.7	.4	.0	.5	15.3	
10+	PCP	.0	.0	.1	.1	.6	.6	.3	.2	.0	.1	2.0	
	NO PCP	.0	1.3	7.3	6.1	30.0	29.3	5.8	1.0	.0	3.3	80.1	
	TOT %	1.0	1.3	7.4	6.2	30.6	30.0	6.1	1.2	.0	3.4	82.2	
TOT OBS													1519
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.4	.5	.1	.0	.0	.0	1.1	
	11-21	.0	.0	.0	.0	.1	.4	.1	.0	.0	.0	.7	
	22+	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2	
	TOT %	.0	.0	.1	.1	.5	1.1	.4	.0	.0	.0	2.2	
5<10	0-3	.0	.1	.1	.0	.2	.3	.0	.0	.0	.0	1.5	
	4-10	.0	.0	.2	.7	2.9	2.6	.9	.3	.0	.0	7.5	
	11-21	.0	.0	.0	.2	1.5	1.7	.4	.2	.0	.0	4.1	
	22+	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.2	
	TOT %	.0	.1	.2	.9	4.6	4.7	1.5	.5	.0	.0	13.3	
10+	0-3	.4	.5	.5	1.0	1.9	1.4	1.1	.3	.0	4.7	11.9	
	4-10	.6	.6	1.5	4.3	20.2	19.1	3.8	.9	.0	.0	51.0	
	11-21	.0	.1	.2	1.7	8.6	9.5	1.2	.0	.0	.0	20.6	
	22+	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.5	
	TOT %	1.0	1.1	2.1	6.3	30.9	30.4	6.2	1.3	.0	4.7	84.0	
TOT OBS													2131
TOT PCT													100.0

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.1	.0	.7	5.9	12.1	3.6	3.3	1.3	.7	.3	28.1	71.9	306
06009	.0	.6	1.9	4.6	12.0	6.5	2.2	1.2	.0	.0	29.7	71.0	374
12015	1.6	.0	1.6	5.6	8.9	4.4	3.2	.0	.0	.0	25.4	74.6	240
18021	.5	.0	1.0	6.2	10.5	7.2	3.8	1.0	.5	.0	30.6	69.4	209
TOT PCT	6 .6	2 .2	14 1.3	60 5.5	120 11.0	58 5.3	33 3.0	10 .9	3 .3	1 .1	307 28.2	780 71.8	1087 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<3	3<10	10+	TOTAL OBS
00003	.0	.2	.4	2.1	11.1	86.3	332
06009	.1	.0	.0	1.9	13.4	84.6	487
12015	.7	.0	.0	2.5	17.0	79.9	448
18021	.2	.2	.2	2.4	11.8	85.2	492
TOT PCT	5 .2	2 .1	3 .1	47 2.2	285 13.2	1817 84.2	1159 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES (VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.3	1.4	7.0	21.8	70.7	294
06009	.3	2.6	8.0	22.8	67.1	311
12015	1.7	2.9	10.9	16.3	72.8	231
18021	.5	1.5	9.3	23.0	67.5	200
TOT PCT	6 .6	22 2.1	94 8.8	220 21.1	732 70.1	1044 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	.0	.1	.1	.0	.0	2	.2
90/94	.0	.0	.0	.0	1.2	.2	.2	.1	17	1.7
85/89	.0	.0	.0	.3	3.1	10.2	7.5	.4	160	16.5
80/84	.0	.0	.0	.1	.9	31.4	34.5	3.5	733	75.4
75/79	.0	.0	.0	.0	.0	.3	3.5	2.2	58	6.0
70/74	.0	.0	.0	.0	.0	.0	.0	.2	2	.2
TOTAL	0	0	0	0	51	410	395	111	972	100.0
PCT	.0	.0	.0	.0	5.3	42.2	40.6	11.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
90/94	.0	.0	.0	.1	.7	.7	.1	.0	.0	.1
85/89	.2	.4	.3	.6	6.8	6.7	.4	.0	.0	.9
80/84	.9	.9	2.3	4.5	27.4	27.0	6.9	1.0	.0	3.7
75/79	.2	.0	.1	.5	1.1	1.9	1.4	.7	.0	.1
70/74	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0
	1.3	1.3	2.6	5.9	36.3	37.2	8.9	1.7	.0	4.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	86	86	82	79	75	74	82.5	82.6	626
06009	95	91	89	84	80	77	74	84.0	964
12015	96	88	85	82	78	77	74	82.3	530
18021	88	84	84	82	79	75	75	81.8	692
TOT	90	90	87	83	79	77	74	82.8	2812

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.4	.7	38.3	46.0	14.6	82	274		
06009	.0	1.0	14.2	53.2	24.1	7.5	77	295		
12015	.0	.0	3.5	43.8	42.0	10.6	80	226		
18021	.0	.0	.0	30.7	54.5	14.9	83	202		
TOT	0	4	52	423	402	116	80	997		

AUGUST

PERIOD: (PRIMARY) 1923-1972  
(OVER-ALL) 1857-1972

TABLE 17

AREA 0006 NATUNA ISLAND  
3.6N 107.0EPCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	NO FOG
14/16	.0	.0	.1	.0	.0	.0	1	.0	.1
11/13	.0	.0	.1	.1	.1	.1	5	.0	.4
9/10	.0	.0	.0	.0	.1	.1	2	.0	.1
7/8	.0	.0	.1	.1	.2	.1	8	.0	.6
6	.0	.0	.1	.1	.1	.0	4	.0	.3
5	.0	.1	.1	.8	.9	.0	27	.0	1.9
4	.0	.0	.8	1.9	.0	.0	41	.0	2.9
3	.0	.1	.2	1.3	.2	.0	25	.0	1.8
2	.0	.1	5.0	4.3	.4	.0	142	.0	10.0
1	.0	.0	3.9	2.4	.0	.0	89	.0	6.2
0	.0	.5	22.1	1.9	.1	.0	351	.0	24.6
-1	.0	.4	12.1	.7	.0	.0	187	.0	13.1
-2	.0	1.3	16.6	.4	.0	.0	260	.0	18.2
-3	.0	1.2	5.3	.1	.0	.0	93	.0	6.5
-4	.0	1.5	5.0	.1	.0	.0	93	.0	6.5
-5	.1	2.3	1.3	.1	.0	.0	34	.0	3.8
-6	.0	.9	.0	.0	.0	.0	13	.0	.9
-7/-8	.4	1.1	.1	.0	.0	.0	23	.0	1.6
-9/-10	.3	.1	.1	.0	.0	.0	6	.0	.4
-11/-13	.1	.1	.0	.0	.0	.0	2	.0	.1
TOTAL	12	135	1037	197	40	3	1426	0	1426
PCT	.8	9.5	72.7	15.6	2.8	.4	100.0		100.0

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1
1-2	.0	1.3	.0	.0	.0	.0	1.3	.2	1.3	.0	.0	.0	.0	1.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.3	.0	.0	.0	.0	1.3	.2	1.3	.0	.0	.0	.0	1.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	1.0	.1	.8	.0	.0	.0	.0	.8
1-2	.2	1.5	.2	.0	.0	.0	1.9	1.0	1.7	.5	.0	.0	.0	3.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	1.5	.5	.0	.0	.0	1.9
5-6	.0	.2	.0	.0	.0	.0	.2	.0	.1	.0	.0	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	2.2	.2	.0	.0	.0	3.1	1.1	4.0	1.0	.0	.0	.0	6.1

PERIOD: (OVER-ALL) 1963-1972

AUGUST

AREA 0006 NATUNA ISLAND  
J.6N 107.0E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.3	.0	.0	.0	.0	1.6	.3	.9	.2	.0	.0	.0	1.5
1-2	.6	13.6	2.1	.0	.0	.0	16.3	.9	13.0	2.5	.0	.0	.0	16.3
3-4	.2	5.5	5.7	.2	.0	.0	11.6	.0	7.2	7.4	.1	.0	.0	11.6
5-6	.0	1.3	1.6	.0	.0	.0	2.8	.0	1.9	4.1	.0	.0	.0	6.0
7	.0	.0	.9	.0	.0	.0	.9	.0	.0	1.5	.2	.0	.0	1.7
8-9	.0	.0	.2	.0	.0	.0	.2	.0	.0	.2	.1	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	21.7	10.5	.2	.0	.0	33.5	.8	19.9	16.3	.3	.0	.0	37.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.6	1.0	.0	.0	.0	.0	1.6	.0	.2	.0	.0	.0	.0	.2	
1-2	.5	4.0	.0	.0	.0	.0	5.0	.0	.2	.0	.0	.0	.0	.2	
3-4	.0	1.6	.0	.0	.0	.0	2.0	.0	.1	.2	.0	.0	.0	.3	
5-6	.0	.2	.3	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.0	6.8	1.5	.2	.0	.0	9.5	.0	.5	.2	.0	.0	.0	.8	93.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	8.8	4.6	.2	.0	.0	.0	13.7	0.5
1-2	3.0	36.4	6.3	.0	.0	.0	45.7	
3-4	.2	12.8	14.2	.2	.0	.0	27.4	
5-6	.0	3.7	6.0	.0	.0	.0	9.7	
7	.0	.0	2.6	.2	.0	.0	2.8	
8-9	.0	.0	.5	.2	.0	.0	.7	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	12.1	57.3	29.7	.7	.0	.0	100.0	431

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.1	32.8	20.8	5.6	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	519	3
6-7	.0	2.0	8.2	5.1	1.2	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	138	4
8-9	.0	.2	.0	1.4	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22	5
10-11	.0	.0	.0	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	6
12-13	.0	.0	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	5
>13	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	5
INDET	8.3	3.0	2.4	.7	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	120	1
TOTAL	100	307	257	107	27	8	1	0	0	0	0	0	0	0	0	0	0	0	0	807	3
PCT	12.4	38.0	31.8	13.3	3.3	1.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1856-1972

SEPTEMBER

AREA 0006 NAYUNA ISLAND  
3.6N 106.9E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	BLWG UST	NO SIG		
N	1.8	3.5	3.5	.0	.0	.0	.0	2.5	3.5	.0	.0	.0	.0	.0	.0	87.7	
NE	1.6	3.1	.8	.0	.0	.0	.0	5.5	3.1	7.0	.0	.0	.0	.0	.0	84.4	
E	2.6	.0	.5	.0	.0	.0	.0	7.1	4.5	1.9	.0	.0	.0	.0	.0	86.4	
SE	3.1	.0	.5	.0	.0	.0	.0	3.6	3.1	4.6	.0	.0	.2	.0	.0	89.6	
S	.8	.9	.9	.0	.0	.0	.0	2.7	.7	4.0	.0	.0	1.4	.0	.0	91.3	
SW	2.5	1.6	1.1	.0	.0	.0	.0	5.0	1.5	2.0	.0	.0	.8	.0	.0	90.9	
W	8.8	2.8	.7	.0	.0	.0	.0	12.2	3.9	2.4	.0	.0	1.3	.0	.0	80.2	
NW	15.9	3.2	2.5	.0	.0	.0	.0	21.7	12.7	5.7	.0	.0	.0	.0	.0	62.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	1.3	.0	.0	.0	.0	.0	.0	1.3	2.6	5.3	.0	.0	2.6	.0	.0	88.2	
TOT PCT	2.9	1.4	1.1	.0	.0	.0	.0	5.4	2.1	3.1	.0	.0	1.0	.0	.0	88.6	
TOT OBS:	1495																

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	BLWG UST	NO SIG		
00003	3.2	1.6	1.4	.0	.0	.0	.0	6.0	3.5	.9	.0	.0	.7	.0	.0	89.1	
06009	2.7	1.7	1.5	.0	.0	.0	.0	5.8	1.7	.2	.0	.0	1.7	.0	.0	90.6	
12015	2.2	1.6	1.3	.0	.0	.0	.0	5.1	1.9	6.0	.0	.0	1.0	.0	.0	86.7	
18021	3.6	.8	.0	.0	.0	.0	.0	4.4	1.1	6.6	.0	.0	.5	.0	.0	87.9	
TOT PCT	3.0	1.4	1.0	.0	.0	.0	.0	5.4	2.1	3.1	.0	.0	1.0	.0	.0	88.7	
TOT OBS:	1525																

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.7	1.4	.1	.0	.0	.0		2.2	5.7	2.1	2.4	.5	2.6	3.3	1.0	3.2	2.9	
NE	.9	1.3	.2	.0	.0	.0		2.4	5.1	2.1	.2	2.5	2.9	3.5	1.0	2.4	1.7	
E	.7	1.5	.1	.0	.0	.0		2.3	5.3	1.9	.9	3.0	2.9	2.3	1.5	2.4	1.7	
SE	.9	5.4	.4	.0	.0	.0		6.9	6.8	7.6	8.1	7.3	4.8	6.1	7.8	7.2	6.6	
S	2.7	19.7	7.1	.1	.0	.0		29.5	8.5	30.2	33.3	33.5	27.0	25.2	34.3	26.0	30.2	
SW	2.9	24.6	10.2	.3	.0	.0		38.0	8.9	37.4	43.8	34.3	43.0	37.8	40.4	37.1	40.0	
W	1.0	5.7	2.2	.2	.0	.0		9.2	8.6	8.8	8.8	10.4	7.5	11.4	6.1	9.5	7.4	
NW	.7	2.0	.5	.1	.0	.0		2.9	7.6	3.8	.9	2.0	3.4	2.6	2.0	3.6	3.0	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	6.6							6.7	.0	6.2	1.7	6.6	5.9	7.8	5.9	8.7	6.4	
TOT OBS	475	1754	398	21	1	0	2849		7.7	536	117	639	306	411	102	412	326	
TOT PCT	16.7	61.6	21.0	.7	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	03	06	18
N	1.5	.6	.1	.0	.0		2.2	5.7	2.1	1.2	2.9
NE	1.8	.6	.0	.0	.0		2.4	5.1	1.8	2.6	3.0
E	1.7	.6	.0	.0	.0		2.3	5.3	1.7	3.0	2.1
SE	3.8	3.1	.0	.0	.0		6.9	6.8	7.7	6.5	6.4
S	10.7	17.5	1.4	.0	.0		29.5	8.5	30.7	31.4	27.0
SW	12.9	22.8	2.3	.0	.0		38.0	8.9	38.6	37.1	38.3
W	3.9	4.6	.7	.0	.0		9.2	8.6	8.8	9.4	10.3
NW	1.6	1.1	.1	.0	.0		2.9	7.6	3.2	2.5	2.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0
CALM	6.6						6.7	.0	5.4	6.3	7.4
TOT OBS	1266	1451	130	2	0	2849		7.7	633	945	513
TOT PCT	44.4	50.9	4.6	.1	.0		100.0		100.0	100.0	100.0



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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-22	22-33	34-47					
00003	5.4	8.0	65.1	20.8	.8	1.0	.0	7.9	100.0	653	
06009	6.3	10.3	58.7	23.4	1.3	.0	.0	8.1	100.0	945	
12015	7.4	9.6	60.6	22.2	.2	.0	.0	7.7	100.0	513	
18021	7.7	11.9	62.6	17.2	.4	.1	.0	7.1	100.0	738	
TOT	19.0	28.6	175.3	59.8	2.1	1.0	0	7.7		2849	
PCT	6.7	10.0	61.5	21.0	.7	*	.0		100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.5	.2	.7	.4		4.8
NE	.4	.8	.7	.6		4.9
E	.7	.6	.6	.3		4.4
SE	1.2	1.0	2.5	1.8		5.3
S	4.6	6.6	13.7	5.8		5.2
SW	4.5	8.1	16.5	7.6		5.3
W	1.4	2.6	4.2	3.4		5.4
NW	.0	.5	1.1	1.0		6.2
VAR	.0	.0	.0	.0		.0
CALM	1.1	1.7	1.6	1.0		4.6
TOT OBS	14.2	21.8	41.1	21.4	985	5.2
TOT PCT	14.4	22.1	41.7	21.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	2500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.1	.6	.0	.3	.0	.0	.0	.9	
.0	.0	.1	.1	.5	.1	.2	.0	.0	.0	1.4	
.0	.0	.0	.3	.2	.2	.0	.0	.0	.0	1.3	
.0	.0	.4	.5	.9	.3	.0	.0	.0	.0	4.5	
.0	.0	.4	1.4	3.4	1.9	.4	.2	.1	.1	22.4	
.0	.1	.6	2.1	3.1	1.8	1.0	.3	.0	.0	27.7	
.2	.2	.5	1.0	1.7	.5	.1	.0	.0	.0	7.4	
.1	.0	.1	.7	.3	.0	.0	.0	.0	.0	1.4	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.1	.2	.3	.5	.0	.1	.0	.0	4.3	
.3	.2	2.2	6.6	10.8	5.1	2.1	.6	.1	.1	70.4	985
		2.2	6.7	11.0	5.2	2.1	.6	.1	.1	71.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	• OR >10	• OR >5	• OR >2	• OR >1	• OR >1/2	• OR >1/4	• OR >50YD	• OR >0
• OR >6500	.3	.3	.3	.3	.3	.3	.3	.3
• OR >5000	.7	.9	.9	.9	.9	.9	.9	.9
• OR >3500	2.2	2.9	3.0	3.0	3.0	3.0	3.0	3.0
• OR >2000	6.4	8.0	8.2	8.2	8.2	8.2	8.2	8.2
• OR >1000	13.6	18.1	18.9	18.9	18.9	18.9	18.9	18.9
• OR >600	16.7	24.0	25.3	25.4	25.5	25.5	25.5	25.5
• OR >300	17.4	25.4	27.2	27.5	27.6	27.7	27.7	27.7
• OR >150	17.4	25.5	27.4	27.7	27.8	27.9	27.9	27.9
• OR >0	17.4	25.7	27.7	28.0	28.1	28.2	28.2	28.2
TOTAL	175	259	279	282	283	284	284	284

TOTAL NUMBER OF OBS: 1006

PCT FREQ NH <5/8: 71.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
5.6	14.6	20.5	17.8	13.2	8.9	7.6	4.9	7.4	.1	1080

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
1<2	PCP	.0	.0	.0	.0	.1	.1	.1	.1	.0	.0	.3	
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.2	.2	.1	.1	.0	.0	.5	
2<5	PCP	.0	.1	.0	.0	.1	.1	.5	.2	.0	.0	.9	
	NO PCP	.0	.1	.0	.1	.6	.6	.1	.0	.0	.1	1.6	
	TOT %	.0	.1	.0	.1	.7	.7	.6	.2	.0	.1	2.5	
5<10	PCP	.1	.1	.1	.2	.4	1.0	.3	.3	.0	.0	2.4	
	NO PCP	.4	.4	.2	1.1	4.3	6.0	1.6	.6	.0	.8	15.5	
	TOT %	.5	.5	.4	1.3	4.7	7.0	1.9	.8	.0	.8	17.9	
10+	PCP	.1	.0	.1	.1	.2	.7	.3	.1	.0	.1	1.6	
	NO PCP	1.3	1.6	2.2	5.4	26.3	29.4	7.3	1.5	.0	4.1	77.4	
	TOT %	1.3	1.6	2.2	5.5	26.5	30.6	7.6	1.6	.0	4.1	79.0	
TOT OBS													1494
TOT PCT													
		1.8	2.1	2.6	6.9	30.1	38.4	10.3	2.6	.0	5.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.3	
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.2	.2	.0	.1	.0	.0	.6	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.1	.4	.5	.3	.2	.0	.0	1.6	
	11-21	.0	.0	.0	.0	.2	.2	.2	.0	.0	.0	.7	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.0	.2	.7	.8	.5	.2	.0	.1	2.6	
5<10	0-3	.2	.2	.1	.1	.4	.4	.0	.0	.0	.7	2.1	
	4-10	.2	.2	.2	.9	2.6	3.6	.7	.3	.0	.0	8.7	
	11-21	.0	.0	.0	.1	1.3	1.8	.7	.4	.0	.0	4.3	
	22+	.0	.0	.0	.0	.0	.2	.1	.0	.0	.0	.3	
	TOT %	.4	.4	.3	1.1	4.3	6.0	1.5	.7	.0	.7	15.4	
10+	0-3	.6	.7	.5	.7	1.8	2.3	1.1	.3	.0	5.9	13.8	
	4-10	.9	1.1	1.4	4.3	16.5	20.3	4.8	1.7	.0	.0	50.9	
	11-21	.0	.2	.1	.4	5.9	8.3	1.0	.2	.0	.0	16.1	
	22+	.0	.0	.0	.0	.1	.2	.2	.0	.0	.0	.4	
	TOT %	1.4	2.0	2.0	5.4	24.2	31.1	7.1	2.1	.0	5.9	81.3	
TOT OBS													2069
TOT PCT													
		1.9	2.5	2.2	6.7	29.5	38.0	9.3	3.1	.0	6.8	100.0	

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PERIOD: (PRIMARY) 1922-1972  
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.3	.6	1.9	8.0	10.3	4.2	1.6	.6	.0	.3	28.0	72.0	311
06009	.0	.0	3.3	6.0	9.0	6.6	2.0	.7	.3	.0	27.9	72.1	301
12015	.0	.0	1.4	5.7	11.0	3.3	2.9	.0	.0	.0	24.4	75.6	209
18021	.8	.0	1.3	5.0	11.7	5.0	1.7	.8	.0	.4	26.8	73.2	239
TOT	3	2	22	67	110	52	21	6	1	2	286	774	1060
PCT	.3	.2	2.1	6.3	10.4	4.9	2.0	.6	.1	.2	27.0	73.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.2	.2	.4	2.6	15.2	31.4	538
06009	.0	.2	.3	2.2	14.4	82.7	624
12015	.0	.0	1.7	3.2	15.0	80.1	412
18021	.0	.0	.2	2.5	16.6	80.8	525
TOT	1	2	12	54	321	1709	2099
PCT	.0	.1	.6	2.6	15.3	81.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.3	3.0	12.8	17.6	69.6	296
06009	.0	3.8	11.0	18.6	70.4	291
12015	.0	1.5	11.3	16.4	72.3	195
18021	.9	2.2	8.9	19.6	71.4	224
TOT	3	28	112	182	712	1006
PCT	.3	2.8	11.1	18.1	70.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.1	1.0	.7	.1	.0	18	1.9
85/89	.0	.0	.0	.4	1.1	9.2	2.8	.5	150	16.0
80/84	.0	.0	.1	1.4	32.2	36.2	6.7	.7	719	76.6
75/79	.0	.0	.0	.0	.4	2.2	2.8	.1	51	5.4
70/74	.0	.0	.0	.0	.0	.0	.1	.1	1	.1
TOTAL	0	0	0	6	31	399	388	95	939	100.0
PCT	.0	.0	.0	.6	3.4	42.5	41.3	10.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.1	.0	.2	.7	.6	.2	.0	.0	.1
.3	.3	.5	.9	5.9	6.3	.9	.1	.0	.7
.9	1.9	1.8	4.8	22.8	29.2	8.3	1.8	.0	5.1
.2	.1	.4	.4	.6	1.4	1.4	.9	.0	.0
.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
1.4	2.5	2.7	6.3	30.1	37.5	10.8	2.8	.0	6.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	91	88	86	83	79	75	74	82.6	649
06009	94	91	89	84	79	76	72	83.9	920
12015	88	86	85	82	79	77	75	82.2	516
18021	88	85	84	82	79	76	73	81.7	739
TOT	94	90	87	82	79	76	72	82.7	2824

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.4	2.5	37.8	47.7	11.7	81	283
06009	.0	1.5	14.3	52.9	23.9	7.4	76	272
12015	.0	.0	2.1	45.3	42.6	10.0	81	190
18021	.0	.5	.9	33.5	51.8	13.3	82	218
TOT	0	6	32	410	394	101	80	963

## SEPTEMBER

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	H FOG	WD FOG
11/13	.0	.0	.0	.0	.1	.1	.1	4	.0	.3
9/10	.0	.0	.0	.1	.0	.1	.1	4	.0	.3
7/8	.0	.0	.0	.1	.2	.3	.0	8	.0	.6
6	.0	.0	.0	.1	.1	.1	.0	4	.0	.3
5	.0	.0	.0	.5	.4	.9	.0	26	.0	1.9
4	.0	.0	.0	1.0	2.8	.6	.1	62	.0	4.4
3	.0	.0	.0	.3	1.0	.1	.0	19	.0	1.4
2	.0	.0	.1	5.0	4.0	.1	.0	129	.0	9.2
1	.0	.0	.0	3.4	2.2	.0	.0	79	.0	5.6
0	.0	.1	.5	21.2	2.9	.0	.0	347	.0	24.7
-1	.0	.0	.1	12.3	.5	.0	.0	181	.0	12.9
-2	.0	.1	1.6	15.9	.5	.0	.0	254	.0	18.1
-3	.0	.0	.6	4.8	.2	.0	.0	78	.0	5.6
-4	.0	.0	3.3	4.6	.1	.0	.0	1	.0	8.0
-5	.0	.0	2.1	1.4	.0	.0	.0	50	.0	3.6
-6	.0	.1	1.1	.1	.0	.0	.0	19	.0	1.4
-7/-8	.0	.6	.6	.2	.0	.0	.0	20	.0	1.4
-9/-10	.0	.3	.0	.1	.0	.0	.0	5	.0	.4
-11/-13	.1	.1	.0	.0	.0	.0	.0	3	.0	.2
TOTAL	1	17	141	999	211	33	3	1405	0	1405
PCT	.1	1.2	10.0	71.1	15.0	2.3	.2	100.0		100.0

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.0	.0	.0	.0	.0	.3	.8	.0	.0	.0	.0	.0	.8
1-2	.0	.7	.0	.0	.0	.0	.7	.8	.9	.0	.0	.0	.0	1.7
3-4	.2	.0	.0	.0	.0	.0	.2	.1	.3	.0	.0	.0	.0	.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	.7	.0	.0	.0	.0	1.2	1.4	1.2	.0	.0	.0	.0	2.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.5
1-2	.0	.8	.0	.0	.0	.0	.8	.1	2.1	.1	.0	.0	.0	2.2
3-4	.0	.3	.0	.0	.0	.0	.3	.0	1.3	.3	.0	.0	.0	1.7
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.1	.0	.0	.0	.0	1.1	.1	4.0	.4	.0	.0	.0	4.4

PERIOD: (OVER-ALL) 1963-1972

SEPTEMBER

AREA 0006 NATUNA ISLAND  
3.6N 106.9E

TABLE 18 (CONT)

PRT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.5	.0	.0	.0	.0	1.5	.8	1.7	.0	.0	.0	.0	2.4
1-2	1.0	10.1	2.8	.0	.0	.0	13.9	1.0	12.6	5.3	.0	.0	.0	18.8
3-4	.0	7.5	2.9	.0	.0	.0	10.4	.0	4.9	6.9	.3	.0	.0	12.1
5-6	.0	.5	3.5	.0	.0	.0	4.0	.0	1.1	3.5	.3	.0	.0	4.8
7	.0	.0	.8	.3	.0	.0	1.1	.0	.0	1.2	.0	.0	.0	1.2
8-9	.0	.0	.4	.0	.0	.0	.4	.0	.0	.4	.0	.0	.0	.4
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	19.6	10.3	.3	.0	.0	31.2	1.9	20.2	17.2	.6	.0	.0	39.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.2	.0	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.4	4.3	1.2	.0	.0	.0	5.9	.0	.8	.0	.0	.0	.0	.8	.8
3-4	.3	1.2	.9	.2	.0	.0	2.5	.0	.3	.5	.0	.0	.0	.8	.8
5-6	.0	.4	.5	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.5	.3	.0	.0	.0	.6	.0	.0	.3	.0	.0	.0	.3	.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT		7.6	2.8	.2	.0	.0	11.3	.0	1.0	.8	.0	.0	.0	1.8	93.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT PCT
<1	8.4	4.8	.0	.0	.0	.0	13.2	13.2
1-2	3.2	32.4	9.2	.0	.0	.0	44.9	44.9
3-4	.5	15.6	11.5	.5	.0	.0	28.1	28.1
5-6	.0	2.0	7.4	.3	.0	.0	9.7	9.7
7	.0	.5	2.6	.3	.0	.0	3.3	3.3
8-9	.0	.0	.8	.0	.0	.0	.8	.8
10-11	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	12.2	55.4	31.4	1.0	.0	.0	100.0	392

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	6.2	30.9	21.3	3.0	1.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	505	2
6-7	.1	2.2	7.6	4.6	2.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	133	4
8-9	.0	.3	.5	1.0	.8	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25	6
10-11	.0	.4	.3	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	4
12-13	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	4
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0
INDEX	8.7	2.6	2.1	.1	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	107	1
TOTAL	117	283	248	85	34	9	2	0	1	0	0	0	0	0	0	0	0	0	0	779	3
PCT	15.0	36.3	31.6	10.9	4.4	1.2	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1920-1972  
(OVER-ALL) 1855-1972

OCTOBER

AREA 0006 NATUNA ISLAND  
3.6N 107.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WNO DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	2.0	.9	.5	.0	.0	.0	.0	3.4	3.2	2.5	.0	.0	.0	.0	90.9
NE	2.4	4.0	.5	.0	.0	.0	.0	6.9	6.3	2.2	.0	.0	1.1	.0	84.6
E	5.9	1.6	1.1	.0	.0	.0	.0	8.6	8.6	2.7	.0	.0	.0	.0	80.1
SE	.6	3.9	1.3	.0	.0	.0	.0	5.8	1.3	3.2	.0	.0	1.9	.0	87.8
S	3.5	.8	1.3	.0	.0	.0	.0	5.5	2.8	1.5	1.0	.0	2.1	.0	87.1
SW	4.8	2.7	1.4	.0	.0	.0	.0	8.5	3.3	1.0	.0	.0	1.4	.0	84.7
W	6.6	2.4	1.5	.0	.0	.0	.0	10.6	3.6	1.5	.0	.0	1.3	.0	82.9
NW	7.0	5.4	1.6	.0	.0	.0	.0	14.0	3.2	1.0	.0	.0	.8	.0	81.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.3	.7	.0	.0	.0	.0	.0	2.0	1.3	2.0	.0	.0	2.6	.0	92.1
TOT PCT	4.1	2.4	1.1	.0	.0	.0	.0	7.6	3.7	1.9	.1	.0	1.3	.0	85.5
TOT OBS:	1556														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST SNOW	NO SIG WEA
00003	4.4	2.1	.2	.0	.0	.0	.0	6.7	3.7	.5	.0	.0	2.1	.0		87.1
06009	4.7	3.3	1.2	.0	.0	.0	.0	9.3	3.1	.0	.4	.0	1.0	.0		86.2
12015	3.3	3.0	.9	.0	.0	.0	.0	7.1	4.6	2.4	.0	.0	1.2	.0		86.1
18021	4.2	1.4	2.3	.0	.0	.0	.0	7.9	4.5	5.9	.0	.0	.8	.0		81.4
TOT PCT TGT OBS:	4.2 1612	2.5	1.1	.0	.0	.0	.0	7.8	3.7	1.9	.1	.0	1.3	.0		85.4

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)						TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+				00	03	06	09	12	15	18	21
N	2.0	4.5	.5	.0	.0	.0	7.0	5.8	6.5	5.2	6.9	7.3	7.4	17.6	6.3	6.1	
NE	1.9	6.8	1.3	.0	.0	.0	10.0	6.4	11.3	12.1	9.6	6.4	9.8	15.0	10.1	10.7	
E	1.6	3.2	.4	.1	.0	.0	5.3	5.7	4.9	7.5	6.6	3.8	5.1	4.2	5.4	4.0	
SE	1.5	2.6	.2	.0	.0	.0	4.3	5.2	5.1	6.2	4.4	3.8	3.6	6.8	3.6	3.4	
S	2.1	8.4	2.9	.3	.0	.0	13.3	7.8	15.8	10.6	13.4	14.0	12.4	10.8	11.7	13.3	
SW	2.8	16.9	9.7	.7	.0	.0	26.1	8.5	25.1	27.9	26.8	29.9	24.3	22.6	24.3	27.4	
W	1.9	9.5	2.8	.3	.1	.0	14.5	8.3	12.2	15.2	14.6	18.2	16.0	10.8	13.8	13.5	
NW	1.8	5.3	1.1	.1	.0	.0	8.3	6.8	7.4	8.5	8.2	10.7	7.8	8.9	8.5	7.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	11.2						11.2	.0	11.7	6.9	9.4	5.8	13.6	3.2	16.4	14.2	
TOT OBS	779	1669	422	44	3	0	2917	6.6	496	130	720	326	425	95	402	323	
TOT PCT	26.7	37.2	14.5	1.5	.1	.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	03	06	12
N	4.8	2.1	.1	.0	.0	7.0	5.8	6.2	7.0	9.2	6.2
NE	6.1	3.8	.1	.0	.0	10.0	6.4	11.3	8.6	10.7	10.5
E	3.8	1.4	.1	.0	.0	5.3	5.7	5.5	5.8	5.0	4.8
SE	3.2	1.0	.1	.0	.0	4.3	5.2	5.3	4.3	4.2	3.5
S	6.5	6.0	.8	.0	.0	13.3	7.8	14.7	12.6	12.1	12.4
SW	10.7	13.8	1.4	.2	.0	26.1	8.5	25.6	27.7	24.0	25.7
W	6.4	7.1	.9	.1	.0	14.5	8.3	12.8	15.7	15.0	13.7
NW	4.9	3.0	.4	.0	.0	8.3	6.8	7.6	9.0	8.0	7.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	11.2					11.2	.0	10.7	8.3	11.7	15.4
TOT OBS	1677	1118	113	9	.0	2917	6.6	626	1046	320	723
TOT PCT	57.5	38.3	3.9	.3	.0	100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	10.7	16.1	56.5	15.7	.6	.3	.0	6.5	100.0	626
06009	8.3	15.0	56.9	18.3	1.5	.0	.0	7.1	100.0	1046
12015	11.7	16.7	57.7	11.5	2.3	.0	.0	6.5	100.0	520
18021	15.4	14.8	57.9	10.1	7.7	.1	.0	6.0	100.0	725
TOT	327	452	1669	422	44	3	0	6.6		2917
PCT	11.2	15.5	57.2	14.5	1.5	.1	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL OBS	MEAN CLOUD COVER
N	1.0	2.0	2.5	.8		4.8
NE	2.3	3.3	5.7	1.7		4.9
E	.9	1.7	3.4	1.1		5.1
SE	.9	1.5	2.1	.7		4.7
S	1.7	1.9	6.2	3.5		5.6
SW	2.2	3.6	10.9	5.6		5.7
W	1.3	2.0	7.1	3.4		5.8
NW	.9	1.3	4.0	1.9		5.6
VAR	.0	.0	.0	.0		.0
CALM	2.6	3.0	4.1	1.2		4.4
TOT OBS	139	205	463	201	1008	5.3
TOT PCT	13.8	20.3	45.9	19.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WIND DIRECTION BY WIND SPEED BY WIND DIRECTION												
	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.5	.6	.2	.1	.0	.0	.0	4.9	
NE	.0	.0	.0	.8	1.6	1.0	.0	.0	.0	.3	9.3	
E	.0	.0	.2	.8	.9	.5	.0	.0	.0	.0	4.7	
SE	.1	.1	.0	.3	.5	.2	.2	.0	.0	.0	3.7	
S	.1	.1	.2	1.1	1.9	.6	.5	.0	.1	.0	8.8	
SW	.0	.1	.8	1.7	2.6	1.9	.4	.1	.2	.0	14.5	
W	.1	.0	.3	1.2	2.5	1.0	.2	.2	.1	.1	8.2	
NW	.1	.0	.1	.5	1.6	.4	.3	.0	.0	.1	4.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.1	.4	.7	.4	.1	.0	.0	.0	9.1	
TOT OBS	4	3	17	73	131	63	19	4	4	5	685	1008
TOT PCT	.4	.3	1.7	7.2	13.0	6.3	1.9	.4	.4	.5	68.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.6	.7	.9	.9	.9	.9	.9	.9
>5000	.9	1.0	1.2	1.2	1.2	1.2	1.2	1.2
>3500	2.7	3.1	3.3	3.3	3.3	3.3	3.3	3.3
>2000	6.9	8.5	9.3	9.3	9.3	9.3	9.3	9.3
>1000	16.3	20.5	21.9	22.0	22.0	22.0	22.0	22.0
>600	20.5	26.8	29.0	29.2	29.2	29.3	29.3	29.3
>300	21.3	28.4	30.6	30.9	30.9	31.0	31.0	31.0
>150	21.3	28.5	30.8	31.1	31.1	31.2	31.2	31.2
>0	21.4	28.8	31.0	31.4	31.4	31.5	31.6	31.6
TOTAL	225	302	326	390	330	331	332	332

TOTAL NUMBER OF OBS: 1050

PCT FREQ NH <5/8: 68.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	4.0	13.1	19.3	18.6	12.6	9.2	6.9	6.7	9.3	.3	1139

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.2	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1<2	PCP	.0	.0	.0	.1	.1	.1	.1	.2	.0	.0	.5	
	NO PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.1	.1	.1	.2	.2	.0	.0	.6	
2<5	PCP	.0	.2	.2	.0	.1	.3	.2	.2	.0	.0	1.2	
	NO PCP	.2	.6	.2	.2	.4	.3	.2	.0	.0	.0	2.3	
	TOT %	.2	.7	.4	.2	.5	.6	.5	.2	.0	.0	3.5	
5<10	PCP	.1	.4	.3	.1	.2	.8	.5	.4	.0	.1	2.9	
	NO PCP	.9	1.6	1.0	1.0	2.6	4.3	2.5	1.3	.0	1.1	16.2	
	TOT %	1.1	1.9	1.2	1.1	2.8	5.1	3.0	1.6	.0	1.2	19.1	
10+	PCP	.1	.3	.1	.1	.3	1.0	.6	.4	.0	.1	2.8	
	NO PCP	9.7	9.2	4.3	3.5	8.8	17.8	10.2	5.6	.0	8.5	73.6	
	TOT %	9.8	9.5	4.4	3.5	9.0	18.8	10.8	6.0	.0	8.6	76.5	
TOT OBS													1555
TOT PCT													7.1 12.2 6.0 5.0 12.5 24.9 14.6 8.0 .0 9.8 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0	.1	
	11-21	.0	.0	.0	.1	.0	.1	.1	.1	.1	.0	.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.1	.1	.2	.2	.2	.1	.7	
2<5	0-3	.2	.1	.0	.0	.1	.0	.0	.0	.0	.2	.7	
	4-10	.1	.3	.1	.1	.4	.7	.3	.1	.0	.0	2.1	
	11-21	.0	.2	.0	.0	.0	.2	.1	.1	.0	.0	.8	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.3	.6	.3	.2	.6	.9	.3	.2	.0	.2	3.7	
5<10	0-3	.3	.2	.2	.3	.5	.5	.1	.2	.0	1.1	3.4	
	4-10	.6	1.3	.7	.6	1.5	2.5	1.2	1.0	.0	.0	9.7	
	11-21	.1	.2	.1	.0	.5	1.1	.8	.2	.0	.0	3.0	
	22+	.0	.0	.0	.0	.2	.3	.0	.0	.0	.0	.7	
	TOT %	.9	1.7	1.1	1.0	2.7	4.4	2.6	1.5	.0	1.1	16.8	
10+	0-3	1.4	1.6	1.4	1.2	1.0	1.8	1.4	1.7	.0	9.5	21.3	
	4-10	4.0	5.9	2.1	2.0	6.7	12.9	8.2	4.0	.0	.0	46.7	
	11-21	.4	1.2	.3	.1	1.6	4.0	1.6	.8	.0	.0	10.1	
	22+	.0	.0	.0	.0	.1	.1	.1	.0	.0	.0	.3	
	TOT %	6.7	8.7	3.8	3.2	9.4	19.8	11.3	6.6	.0	9.5	78.5	
TOT OBS													2101
TOT PCT													7.3 11.0 5.2 4.5 12.4 25.2 14.6 8.5 .0 10.9 100.0



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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH < 5/8 ANY HGT	TOTAL OBS
00003	.0	.0	2.6	3.9	10.7	5.8	1.6	1.0	.3	.6	26.5	73.4	308
06009	.9	.3	1.5	7.9	13.1	5.5	2.0	.3	.3	.3	32.1	67.9	343
12015	.0	.4	.9	9.9	10.8	6.0	2.6	.0	.4	.4	31.5	68.5	232
18021	.5	.5	.9	7.2	14.0	5.4	1.8	.0	.5	.5	31.2	68.8	221
TOT	4	3	17	78	134	63	22	4	4	5	334	770	1104
PCT	.4	.3	1.5	7.1	12.1	5.7	2.0	.4	.4	.5	30.3	69.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.2	.2	.4	2.5	16.6	80.1	513
06009	.1	.1	1.2	2.9	15.5	80.1	685
12015	.2	.0	.5	6.2	19.0	74.1	436
18021	.4	.0	.6	3.6	15.6	79.8	525
TOT	5	2	15	79	356	1702	2159
PCT	.2	.1	.7	3.7	16.5	78.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET, NH > 4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL OBS
00003	.0	2.7	9.0	19.4	71.6	299
06009	.9	2.7	13.0	20.8	66.3	332
12015	.0	1.8	14.6	19.6	65.8	219
18021	.5	2.0	12.5	22.5	65.0	200
TOT	4	25	127	215	708	1050
PCT	.4	2.4	12.1	20.5	67.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.2	1.1	.3	.2	.0	18	1.8
85/89	.0	.0	.0	.0	3.3	10.3	1.9	.7	159	16.3
80/84	.0	.0	.0	.0	1.7	32.7	31.4	7.4	715	73.2
75/79	.0	.0	.0	.0	.0	.7	4.2	3.6	89	8.5
70/74	.0	.0	.0	.0	.0	.0	.0	.2	2	.2
TOTAL	0	0	0	2	60	430	369	116	977	100.0
PCT	.0	.0	.0	.2	6.1	44.0	37.8	11.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.2	.0	.0	.3	.5	.5	.1	.0	.3
85/89	1.2	1.5	.8	.8	2.4	4.8	1.7	1.2	.0	1.8
80/84	4.5	10.6	5.5	3.4	8.5	15.6	10.4	5.8	.0	9.0
75/79	.3	.7	.5	.5	1.1	2.7	1.6	1.1	.0	.1
70/74	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0
TOTAL	6.0	13.0	6.8	4.6	12.3	23.5	14.3	8.3	.0	11.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	91	88	86	82	78	75	72	82.2	628
06009	94	91	88	83	78	75	72	83.3	1031
12015	90	86	84	82	79	76	74	81.7	533
18021	88	85	84	82	79	75	70	81.4	734
TOT	94	90	87	82	78	75	70	82.3	2926

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	1.1	42.1	45.3	10.6	81	274
06009	.0	.6	15.2	52.3	22.3	9.7	77	310
12015	.0	.0	2.7	46.2	39.4	11.8	81	221
18021	.0	.0	2.8	33.5	47.7	16.1	82	218
TOT	0	2	62	435	384	120	80	1023

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	92	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.0	.0	.1	.0	1	.0	.1
9/10	.0	.0	.0	.0	.0	.1	.0	1	.0	.1
7/8	.0	.0	.0	.3	.0	.3	.0	9	.0	.6
6	.0	.0	.0	.0	.1	.1	.0	3	.0	.2
5	.0	.0	.0	.3	.7	.3	.1	23	.0	1.5
4	.0	.0	.1	.9	1.9	.8	.0	55	.0	3.7
3	.0	.0	.0	.3	.9	.1	.0	21	.0	1.4
2	.0	.0	.1	3.8	3.9	.1	.0	118	.0	7.9
1	.0	.0	.0	3.3	1.9	.0	.0	77	.1	5.1
0	.0	.1	.0	15.3	2.5	.0	.0	275	.1	18.4
-1	.0	.0	.4	10.7	.7	.0	.0	106	.0	11.1
-2	.0	.1	1.9	10.4	.6	.1	.0	315	.0	21.1
-3	.0	.0	2.1	6.0	.2	.0	.0	124	.0	8.3
-4	.0	.2	4.2	5.7	.1	.0	.0	151	.0	10.1
-5	.0	.2	3.2	2.0	.1	.0	.0	84	.0	5.6
-6	.0	.1	1.1	.3	.0	.0	.0	24	.0	1.6
-7/-8	.1	.3	1.8	.2	.0	.0	.0	36	.0	2.4
-9/-10	.0	.1	.1	.0	.0	.0	.0	4	.0	.3
-11/-13	.1	.3	.0	.0	.0	.0	.0	5	.0	.3
TOTAL	2	21	236	1002	31	2	1492	2	1490	
PCT	.1	1.4	15.4	67.2	13.7	2.1	100.0	.1	99.9	

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.1	.0	.0	.0	.0	.0	1.1	.5	1.4	.0	.0	.0	.0	2.1
1-2	.4	2.4	.3	.0	.0	.0	3.1	1.1	5.2	1.6	.0	.0	.0	7.9
3-4	.0	.6	.4	.0	.0	.0	1.0	.0	4.1	1.6	.0	.0	.0	3.8
5-6	.0	.0	.2	.0	.0	.0	.2	.0	.5	.1	.0	.0	.0	.7
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.5	3.0	.8	.0	.0	.0	5.3	1.6	9.4	3.6	.0	.0	.0	14.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	.3	.0	.0	.0	.0	1.2	.5	.3	.0	.0	.0	.0	.8
1-2	.7	2.7	.5	.0	.0	.0	3.8	.3	2.0	.3	.0	.0	.0	2.6
3-4	.3	.5	.0	.0	.0	.0	.7	.0	.7	.3	.0	.0	.0	1.0
5-6	.0	.3	.2	.0	.0	.0	.5	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.9	3.8	.7	.0	.0	.0	6.2	.8	3.1	.8	.0	.0	.0	4.4

PERIOD: (OVER-ALL) 1963-1972

OCTOBER

AREA 0006 NATUNA ISLAND  
3.6N 107.0E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S						PCT	SW						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	1.2	.0	.0	.0	.0	1.2	.8	2.4	.0	.0	.0	.0	3.2
1-2	.5	4.2	.7	.0	.0	.0	5.3	.8	7.0	1.4	.0	.0	.0	9.2
3-4	.0	1.8	1.0	.0	.0	.0	2.7	.0	2.5	2.4	.0	.0	.0	4.9
5-6	.0	.2	.2	.0	.0	.0	.4	.0	.6	.3	.0	.0	.0	.9
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	1.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	7.4	1.9	.0	.0	.0	9.7	1.6	12.6	5.1	.0	.0	.0	19.3

HGT	W						PCT	NW						PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+		
<1	.7	3.9	.0	.0	.0	.0	4.6	1.0	.2	.0	.0	.0	.0	1.2	
1-2	1.5	5.7	.7	.0	.0	.0	7.9	1.2	2.3	1.1	.0	.0	.0	4.6	
3-4	.0	1.7	1.3	.0	.0	.0	3.0	.0	1.8	1.1	.0	.0	.0	2.9	
5-6	.0	.7	.0	.0	.0	.0	.7	.0	.3	.5	.0	.0	.0	1.1	
7	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.1	12.0	2.3	.0	.0	.0	16.4	2.1	4.7	2.7	.3	.0	.0	9.8	85.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	19.6	9.9	.0	.0	.0	.0	.0	29.6
1-2	7.1	31.1	6.4	.0	.0	.0	44.6	
3-4	.3	11.5	7.9	.0	.0	.0	19.6	
5-6	.0	2.6	1.8	.3	.0	.0	4.6	
7	.0	.0	1.5	.0	.0	.0	1.5	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	27.0	55.1	17.6	.3	.0	.0	100.0	392

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	9.5	31.2	18.5	3.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	499	2
6-7	.1	3.0	6.6	4.1	1.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	122	4
8-9	.1	.7	1.2	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25	4
10-11	.0	.1	.5	.1	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	3
12-13	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	3
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDEX	13.9	2.4	1.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	145	1
TOTAL	189	300	224	70	15	3	0	0	0	0	0	0	0	0	0	0	0	0	0	801	2
PCT	23.6	37.5	28.0	8.7	1.9	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

NOVEMBER

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1856-1972

AREA 0006 NATUNA ISLAND  
3.5N 107.1E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WNO DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
N	3.3	2.0	1.5	.0	.0	.0	.0	6.6	4.1	1.4	.3	.0	.0	.0	87.6
NE	4.6	2.4	1.5	.0	.0	.0	.0	7.9	3.8	1.2	.0	.0	.2	.0	86.8
E	4.1	1.4	3.0	.0	.0	.0	.0	7.5	5.1	1.6	.0	.0	.0	.0	85.8
SE	7.0	3.5	2.2	.0	.0	.0	.0	12.3	7.5	2.2	.0	.0	.0	.0	78.1
S	8.8	1.8	.7	.0	.0	.0	.0	10.6	7.9	3.2	.0	.0	.9	.0	78.3
SW	12.2	2.0	1.7	.0	.0	.0	.0	15.9	2.7	2.4	.3	.0	.7	.0	78.0
W	9.5	3.1	2.3	.0	.0	.0	.0	14.2	7.4	1.4	.4	.0	.0	.0	76.7
NW	7.3	3.7	.9	.0	.0	.0	.0	11.9	3.3	.1	.7	.0	.0	.0	84.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	1.1	.0	.0	.0	.0	.0	1.1	.0	1.1	.0	.0	2.2	.0	95.0
TOT PCT	5.9	2.3	1.5	.0	.0	.0	.0	9.4	4.3	1.5	.2	.0	.3	.1	84.4
TOT OBS:	1504														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT QB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
0000	5.1	1.5	1.0	.0	.0	.0	.0	7.5	6.1	.2	.2	.0	.2	.0	85.6
0600	7.3	2.7	1.1	.0	.0	.0	.0	10.7	3.7	.5	.0	.0	.0	.2	85.2
1200	6.4	1.7	2.9	.0	.0	.0	.0	10.4	3.8	1.4	.3	.0	.6	.0	83.5
1800	5.4	4.0	1.1	.0	.0	.0	.0	10.2	3.4	4.2	.3	.0	.6	.0	81.6
TOT PCT OBS:	6.1	2.5	1.5	.0	.0	.0	.0	9.7	4.3	1.5	.2	.0	.3	.1	84.1

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	2.1	11.9	3.8	.3	.0	.0		17.8	8.1		16.9	18.8	17.7	19.5	18.7	22.0	17.1	15.1
NE	2.5	14.9	6.5	.3	.0	.0		24.2	8.8		25.4	22.5	24.8	25.3	26.0	22.9	20.6	
E	1.4	5.0	.9	.1	.0	.0		7.4	7.1		7.9	7.3	7.2	5.2	6.7	5.9	10.2	7.4
SE	.9	2.8	.5	.0	.0	.0		4.1	6.3		4.5	4.4	4.8	3.9	3.0	5.9	1.8	6.2
S	1.8	4.8	.8	.0	.0	.0		7.3	6.2		7.9	9.6	6.6	6.5	4.8	10.0	7.3	10.1
SW	2.0	7.4	1.3	.2	.0	.0		10.9	7.2		12.1	7.3	11.0	12.8	12.0	10.4	8.1	10.6
W	1.9	6.0	1.6	.1	.0	.0		9.6	7.3		9.6	10.6	9.8	9.4	8.6	6.4	5.7	10.9
NW	2.2	6.3	1.8	.1	.0	.0		10.3	7.1		6.9	13.3	10.9	11.0	12.2	14.0	9.8	9.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	8.4							8.4	.0		8.7	6.2	7.1	6.3	8.0	2.5	13.1	9.7
TOT OBS	655	1672	478	31	0	0	2336		7.0		472	130	617	315	440	118	405	339
TOT PCT	23.1	59.0	18.9	1.1	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	03	06	18
N	7.9	8.6	1.2	.0	.0				17.4	18.3	19.4	16.2
NE	9.0	13.2	1.9	.1	.0				24.8	25.0	25.4	21.8
E	4.1	3.1	.1	.1	.0				7.4	7.1	7.8	8.9
SE	2.8	1.3	.1	.0	.0				4.1	6.3	4.5	3.6
S	4.5	2.8	.0	.0	.0				7.3	6.2	8.3	8.6
SW	5.6	4.8	.4	.0	.0				10.9	7.2	11.0	9.3
W	5.0	4.2	.3	.0	.0				9.6	7.3	9.8	10.2
NW	5.6	4.4	.3	.0	.0				10.3	7.1	8.3	9.6
VAR	.0	.0	.0	.0	.0				.0	.0	.0	.0
CALM	8.4								8.1	6.9	6.8	11.6
TOT OBS	1500	1204	126	6	0	2836			602	932	558	744
TOT PCT	52.9	42.3	4.4	.2	.0				100.0	100.0	100.0	100.0

PERIOD: PRIMARY 1922-1972  
(OVER-ALL) 1856-1972

NOVEMBER

TABLE 4

AREA 0000 NATUNA ISLAND  
3,54 107.1E

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND DIR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
0000	8.1	14.3	59.8	10.8	1.0	0.0	0.0	5.9	100.0	802
0600	6.9	13.7	59.1	19.0	1.3	0.0	0.0	7.4	100.0	932
1200	6.8	15.8	58.8	17.6	1.1	0.0	0.0	7.3	100.0	954
1800	11.6	15.0	56.2	13.7	0.9	0.0	0.0	6.4	100.0	744
TOT	23.7	41.9	157.2	49.8	3.1	0.0	0.0	7.0		2814
PCT	8.4	14.7	59.1	16.9	1.1	0.0	0.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (HEIGHTS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-6	TOTAL CLOUD OBS	MEAN CLOUD COVER
N	2.1	3.9	7.6	2.9	16.5	4.1
NE	3.4	6.7	12.0	6.2	28.3	5.3
E	1.5	1.7	4.3	1.3	8.8	2.7
SE	0.3	1.5	1.5	1.4	4.7	0.8
S	0.8	1.6	2.8	2.1	7.3	1.6
SW	0.7	1.7	4.7	2.6	9.7	2.0
W	0.7	1.1	3.5	2.5	7.8	1.9
NW	1.9	2.1	4.1	3.4	11.5	2.9
VAR	0.0	0.0	0.0	0.0	0.0	0.0
CALM	1.2	1.6	2.8	0.7	6.3	1.6
TOT OBS	124	208	430	233	995	5.4
TOT PCT	12.5	20.9	43.2	23.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) AND  
OCCURRENCE OF WIND DIRECTION

000	100	200	300	400	500	600	700	800	900	1000	TOTAL
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000
000	100	200	300	400	500	600	700	800	900	1000	000

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1856-1972

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AREA 0006 NATUNA ISLAND  
3.5N 107.1E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.2	.0	.0	.0	.1	.0	.0	.0	.0	.3	
	NO PCP	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.2	.1	.0	.0	.1	.0	.0	.0	.0	.4	
1/2<1	PCP	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1<2	PCP	.1	.1	.1	.1	.1	.0	.1	.0	.0	.0	.5	
	NO PCP	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	TOT %	.1	.2	.1	.1	.1	.0	.1	.1	.0	.0	.7	
2<5	PCP	.2	.5	.0	.1	.1	.2	.3	.3	.0	.0	1.7	
	NO PCP	.4	.5	.3	.2	.3	.2	.2	.2	.0	.0	2.5	
	TOT %	.6	1.0	.3	.3	.5	.5	.5	.5	.0	.0	4.2	
5<10	PCP	.3	.8	.0	.3	.3	.6	.5	.7	.0	.1	3.7	
	NO PCP	7.1	4.9	1.5	.8	.9	1.1	1.9	2.2	.0	.5	15.9	
	TOT %	2.4	5.7	1.5	1.1	1.2	1.7	2.4	3.0	.0	.5	19.6	
10+	PCP	.5	.5	.4	.0	.2	.6	.3	.3	.0	.0	3.0	
	NO PCP	14.0	19.1	5.9	2.3	5.2	6.9	5.2	7.7	.0	5.5	71.9	
	TOT %	14.5	19.6	6.4	2.3	5.4	7.6	5.6	8.1	.0	5.5	74.9	
TOT OBS													1503
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.3	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.0	.0	.0	.1	.0	.0	.0	.0	.4	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.1	.2	.0	.1	.1	.0	.0	.1	.0	.0	.7	
2<5	0-3	.1	.0	.0	.0	.1	.1	.0	.0	.0	.0	.4	
	4-10	.4	.4	.2	.1	.3	.2	.2	.2	.0	.0	2.0	
	11-21	.2	.4	.0	.0	.1	.2	.1	.2	.0	.0	1.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.7	.9	.3	.2	.5	.4	.4	.4	.0	.0	3.8	
5<10	0-3	.2	.4	.2	.1	.4	.5	.2	.5	.0	.5	2.9	
	4-10	1.2	2.3	.7	.5	.5	1.0	1.4	1.2	.0	.0	8.9	
	11-21	.7	1.9	.2	.3	.2	.2	.6	.5	.0	.0	4.6	
	22+	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.3	
	TOT %	2.2	4.7	1.2	.9	1.1	1.7	2.2	2.3	.0	.5	16.7	
10+	0-3	2.0	2.0	1.2	.8	1.3	1.2	1.1	1.9	.0	8.1	19.5	
	4-10	9.9	12.0	4.5	1.9	4.0	5.8	3.8	5.0	.0	.0	47.0	
	11-21	2.4	4.8	.8	.1	.4	.7	.7	1.1	.0	.0	11.0	
	22+	.3	.2	.0	.0	.0	.1	.0	.0	.0	.0	.6	
	TOT %	14.6	19.1	6.5	2.8	5.7	7.7	5.6	8.0	.0	8.1	78.1	
TOT OBS													2068
TOT PCT													100.0

# NOVEMBER

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1856-1972

AREA 0006 NATUNA ISLAND  
3.5N 107.1E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.3	4.1	9.5	13.2	10.5	2.0	1.0	.0	.3	40.9	59.1	296
06009	.3	.3	2.8	8.6	13.9	8.6	.9	.0	.3	.6	36.4	63.6	324
12015	1.7	.0	1.3	11.2	15.1	6.5	.9	1.3	.4	1.3	39.7	60.3	232
18021	1.4	.0	3.2	6.4	13.2	5.9	1.4	.9	.0	.5	32.9	67.1	219
TOT	8	2	31	96	148	87	14	8	2	7	403	608	1071
PCT	.7	.2	2.9	9.0	13.6	8.1	1.3	.7	.2	.7	37.6	62.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.4	.2	4.3	15.0	80.1	488
06009	.6	.2	.6	3.1	14.9	80.6	649
12015	.4	.2	1.8	5.5	19.7	72.3	492
18021	.6	.0	.6	2.9	17.8	78.2	523
TOT	9	4	16	81	352	1690	2112
PCT	.4	.2	.8	3.8	16.7	78.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <500'	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	4.5	16.8	25.9	57.3	286
06009	.3	4.2	15.6	23.8	60.6	307
12015	1.8	3.1	14.2	22.2	59.6	225
18021	1.4	4.8	14.3	21.4	64.3	210
TOT	8	43	167	242	619	1028
PCT	.8	4.2	16.2	23.5	60.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.3	.2	.3	.1	.0	9	.9
85/89	.0	.0	.0	.2	1.7	6.4	1.6	.7	105	10.7
80/84	.0	.0	.0	.1	1.1	28.4	26.7	7.6	726	73.9
75/79	.0	.0	.0	.0	.0	1.0	6.1	6.9	138	14.1
70/74	.0	.0	.0	.0	.0	.0	.0	.4	4	.4
TOTAL	0	0	0	6	30	355	337	154	982	100.0
PCT	.0	.0	.0	.6	3.1	36.2	44.5	15.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.2	.4	.1	.8	.2	.8	.0	.0	.0	.0
85/89	1.6	3.6	.9	.8	.7	1.0	.7	.9	.0	.5
80/84	11.8	20.6	7.0	2.6	5.1	7.5	5.1	8.7	.0	5.7
75/79	2.3	9.6	1.0	.4	.7	1.7	1.8	2.2	.0	.3
70/74	.0	.1	.0	.0	.1	.2	.1	.0	.0	.0
TOTAL	15.9	28.4	9.0	3.9	6.8	10.3	7.7	11.6	.0	6.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	93	88	85	82	77	75	73	81.5	602
06009	94	90	87	82	77	75	72	82.4	926
12015	87	86	84	81	77	75	72	81.0	561
18021	88	84	83	81	77	75	72	80.6	749
TOT	94	87	86	81	77	75	72	81.4	2838

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.4	2.7	29.9	50.0	17.0	83	264		
06009	.0	1.3	6.8	49.2	30.0	12.7	79	307		
12015	.0	.4	.9	32.9	49.8	16.0	83	225		
18021	.0	.0	.9	30.0	50.2	18.9	84	227		
TOT	0	6	32	372	450	163	82	1023		

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1856-1972

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AREA 0000 NATUNA ISLAND  
3.54 107.1E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.0	.2	.1	.1	5	.0	.3
9/10	.0	.0	.0	.1	.0	.3	.0	5	.0	.3
7/8	.0	.0	.0	.1	.2	.1	.1	7	.0	.5
6	.0	.0	.0	.1	.1	.2	.0	6	.0	.4
5	.0	.0	.1	.4	.6	.1	.0	19	.0	1.3
4	.0	.0	.1	1.0	1.1	.1	.0	33	.0	2.3
3	.0	.1	.0	.5	.9	.2	.0	26	.0	1.8
2	.0	.0	.3	4.8	2.3	.1	.0	104	.0	7.2
1	.0	.0	.6	2.9	1.2	.0	.0	67	.0	4.7
0	.0	.0	1.5	18.0	1.7	.0	.0	276	.0	19.2
-1	.0	.1	1.6	7.3	.3	.0	.0	134	.0	9.3
-2	.2	.1	5.6	16.9	.1	.0	.0	330	.1	22.9
-3	.0	.0	2.2	4.5	.1	.0	.0	97	.0	6.5
-4	.0	.4	5.2	8.0	.2	.0	.0	170	.1	11.7
-5	.0	.5	3.2	1.5	.0	.0	.0	75	.0	5.2
-6	.0	.3	1.5	.4	.0	.0	.0	31	.0	2.2
-7/-8	.0	.6	1.7	.3	.0	.0	.0	37	.0	2.6
-9/-10	.0	.5	.3	.0	.0	.0	.0	11	.0	.8
-11/-13	.1	.1	.0	.0	.0	.0	.0	2	.0	.1
-14/-16	.0	.1	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	4		343		131		2	1436	3	1433
PCT	.3	2.7	23.9	62.7	9.1	1.1	.1	100.0	.2	99.8

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	1.6	.0	.0	.0	.0	2.0	1.7	1.3	.0	.0	.0	.0	3.2
1-2	1.1	7.3	.2	.0	.0	.0	8.6	.0	7.0	2.5	.0	.0	.0	10.2
3-4	.4	1.8	1.3	.2	.0	.0	3.8	.1	5.1	5.4	.1	.0	.0	10.7
5-6	.0	.3	1.1	.0	.0	.0	1.4	.0	.4	3.9	.0	.0	.0	4.3
7	.0	.0	.5	.0	.0	.0	.5	.0	.0	1.0	.5	.0	.0	1.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.2	.0	.0	.7
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.9	11.0	3.3	.2	.0	.0	16.4	2.6	13.9	13.2	.9	.0	.0	30.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.0	.0	.0	.0	.0	1.3	.0	.2	.0	.0	.0	.0	.2
1-2	.7	3.6	1.1	.0	.0	.0	5.4	.4	1.8	.1	.0	.0	.0	2.3
3-4	.0	2.7	1.0	.2	.0	.0	3.8	.1	.2	.5	.0	.0	.0	.8
5-6	.0	.4	.0	.0	.0	.0	.4	.0	.0	.2	.0	.0	.0	.2
7	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.7
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	7.7	2.0	.4	.0	.0	11.0	.5	2.9	.8	.0	.0	.0	4.5



PERIOD: (OVER-ALL) 1963-1972

NOVEMBER

AREA 0006 NATUNA ISLAND  
3.5N 107.1E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.2	.5	.0	.0	.0	.0		.7	.3	.2	.0	.0	.0	.0		.5
1-2	.5	2.4	.5	.0	.0	.0		3.4	.8	2.3	.3	.0	.0	.0		3.9
3-4	.2	1.2	.2	.0	.0	.0		1.6	.2	1.0	.5	.0	.0	.0		1.6
5-6	.0	.0	.4	.0	.0	.0		.4	.0	.2	.5	.0	.0	.0		.8
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.5	.2	.0	.0		.7
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	1.0	4.1	1.1	.0	.0	.0		6.1	1.1	4.3	1.9	.2	.0	.0		7.5

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.7	.0	.0	.0	.0	.0		.7	.5	.0	.0	.0	.0	.0		.5	
1-2	.7	2.2	.7	.0	.0	.0		3.5	.3	2.7	.9	.0	.0	.0		3.9	
3-4	.0	.7	.8	.0	.0	.0		1.5	.0	1.5	.8	.0	.0	.0		2.3	
5-6	.0	.0	.5	.0	.0	.0		.5	.0	.0	1.0	.0	.0	.0		1.4	
7	.0	.0	.2	.0	.0	.0		.2	.0	.5	.1	.0	.0	.0		.5	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	1.3	2.8	2.2	.0	.0	.0		6.4	.8	3.1	2.8	.0	.0	.0		8.7	90.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	14.5	4.9	.0	.0	.0	.0	19.4	085
1-2	5.9	29.0	6.8	.0	.0	.0	41.0	
3-4	.7	13.8	10.5	.5	.0	.0	25.5	
5-6	.0	1.6	7.5	.0	.0	.0	9.1	
7	.0	.5	2.1	.9	.0	.0	3.5	
8-9	.0	.0	.5	.2	.0	.0	.7	
10-11	.0	.7	.0	.0	.0	.0	.7	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	21.1	50.6	26.7	1.6	.0	.0	100.0	427

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	51-70	71-86	87+	TOTAL	MEAN HGT
<6	7.0	26.4	15.8	3.5	1.3	.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	424	2
6-7	.0	3.0	9.1	5.2	2.5	.4	.6	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	163	4
8-9	.1	.9	1.9	3.2	1.6	.8	.3	.5	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	72	5
10-11	.0	1.0	.8	.5	.4	.0	.1	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25	5
12-13	.0	.0	.5	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	5
>13	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	5
INDEX	7.4	1.0	1.2	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	82	1
TOTAL	112	290	226	102	47	11	11	7	5	1	0	0	0	0	0	0	0	0	0	772	3
PCT	14.1	32.4	29.3	13.2	6.1	1.4	1.4	.9	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1923-1972  
(OVER-ALL) 1856-1972

DECEMBER

AREA 0006 NATUNA ISLAND  
3.5N 107.1E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE															OTHER WEATHER PHENOMENA				
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA				
N	3.6	2.6	1.9	.0	.0	.0	.0	8.0	4.1	.4	.0	.0	.7	.0	86.9				
NE	3.2	2.1	1.9	.0	.0	.0	.0	7.2	5.3	.4	.0	.0	.8	.0	86.2				
E	8.3	3.2	2.5	.0	.0	.0	.0	14.0	5.4	.0	.0	.0	.0	.0	80.6				
SE	1.1	6.8	4.5	.0	.0	.0	.0	12.5	1.1	4.5	.0	.0	.0	.0	81.8				
S	5.6	.0	.0	.0	.0	.0	.0	5.6	4.2	.0	.0	.0	.0	.0	90.1				
SW	5.9	.0	6.0	.0	.0	.0	.0	9.9	4.0	4.0	.0	.0	4.0	.0	78.2				
W	10.7	.0	.0	.0	.0	.0	.0	10.7	3.1	.0	.0	.0	.0	.0	86.3				
NW	9.4	2.7	.3	.0	.0	.0	.0	12.5	4.3	1.5	.0	.0	.0	.0	81.8				
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0				
CALM	3.3	6.7	.0	.0	.0	.0	.0	10.0	.0	3.3	.0	.0	.0	.0	86.7				
TOT PCT	4.2	2.4	1.8	.0	.0	.0	.0	8.4	4.6	.6	.0	.0	.7	.0	85.7				
TOT OBS:	1434																		

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00003	2.9	1.6	2.1	.0	.0	.0	.0	6.3	6.5	.3	.0	.0	.5	.0	86.4
06009	4.8	2.7	1.2	.0	.0	.0	.0	8.7	4.4	.0	.0	.0	.7	.0	86.2
12015	3.2	3.5	2.7	.0	.0	.0	.0	9.4	4.1	1.5	.0	.0	.9	.0	84.1
18021	5.6	1.9	1.9	.0	.0	.0	.0	9.3	3.1	.9	.0	.0	.6	.0	86.1
TOT PCT TOT OBS:	4.1 1458	2.4	1.9	.0	.0	.0	.0	8.4	4.6	.6	.0	.0	.7	.0	85.7

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.1	14.0	19.5	1.9	.0	.0		30.5	11.8		32.1	34.4	27.8	31.0	29.2	33.6	28.5	34.6
NE	1.6	19.2	20.8	2.3	.0	.0		42.8	11.5		43.0	41.0	46.5	41.9	43.9	51.1	44.7	39.8
E	.6	4.7	1.2	.1	.0	.0		6.6	8.0		7.3	6.8	5.5	4.9	6.7	4.3	8.1	7.7
SE	.4	1.8	.1	.0	.0	.0		2.3	5.8		2.1	3.4	1.9	3.1	1.9	1.7	3.0	1.8
S	.3	1.0	.2	.0	.0	.0		1.5	6.0		.9	5.8	1.5	.8	2.2	1.7	1.1	1.4
SW	.4	1.5	.2	.0	.0	.0		2.1	6.1		1.8	1.7	2.8	2.6	2.4	2.3	1.3	1.0
W	.5	1.6	.5	.1	.0	.0		2.7	7.2		3.2	.9	2.8	2.8	3.1	1.1	2.2	2.1
NW	.5	4.3	1.9	.2	.0	.0		6.8	9.2		7.1	4.5	8.1	7.5	7.3	4.0	5.9	5.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.8							3.8	.0		2.7	3.4	3.0	5.4	2.8	.0	5.3	6.1
TOT OBS	258	1346	1076	127	1	0	2808		10.5		482	117	600	353	462	87	396	311
TOT PCT	0.2	47.9	38.3	4.5	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	5.5	18.5	6.0	.4	.0		30.5	11.8	32.5	29.0	29.9	31.2		
NE	8.0	26.4	6.9	.5	.0		43.8	11.8	42.6	44.8	43.1	42.5		
E	3.2	3.0	.4	.0	.0		6.6	9.0	7.2	5.3	6.7	8.0		
SE	1.6	.7	.0	.0	.0		2.3	5.8	2.4	2.4	.9	2.4		
S	1.0	.5	.0	.0	.0		1.5	6.0	1.5	1.3	2.1	1.2		
SW	1.4	.6	.0	.0	.0		2.1	6.1	1.8	2.7	2.4	1.1		
W	1.6	.9	.1	.0	.0		2.7	7.2	2.7	2.8	3.1	2.2		
NW	2.5	3.6	.6	.1	.0		6.8	9.2	6.6	7.9	6.8	5.7		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	3.8						3.8	.0	2.8	3.9	2.4	5.7		
TOT OBS	808	1522	452	28	0	2808		10.5	599	953	549	707		
TOT PCT	28.7	54.2	16.1	1.0	.0		100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1923-1972  
(OVER-ALL) 1856-1972

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	2.8	6.0	48.9	37.7	4.5		.0	.0	10.5	100.0	599
06009	3.7	5.2	40.6	39.6	4.6		.1	.0	10.5	100.0	957
12015	2.4	6.0	43.7	43.0	4.9		.0	.0	11.1	100.0	549
18021	5.7	4.5	52.2	33.5	4.1		.0	.0	9.9	100.0	767
TOT	107	151	1346	1076	127		1	0	10.5		2808
PCT	3.8	5.4	47.9	38.3	4.5		.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL OBS	MEAN CLOUD COVER
N	2.5	5.0	11.9	11.7		6.0
NE	4.4	9.1	21.7	14.5		5.8
E	.6	1.0	2.2	1.6		5.7
SE	.0	.1	.7	.5		6.7
S	.1	.3	.9	.0		4.7
SW	.1	.6	1.0	.2		5.2
W	.2	.1	.8	1.5		6.9
NW	.1	.7	2.5	2.2		6.4
VAR	.0	.0	.0	.0		5.2
CALM	.4	.1	1.0	.4		5.9
TOT OBS	83	167	416	322	938	
TOT PCT	8.4	16.9	42.1	32.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) AND OCCURRENCE OF NH (5/8) BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH (5/8) ANY HGT	TOTAL OBS
149	199	599	999	1999	3499	4999	6499	7999			
.1	.1	1.0	3.8	5.7	2.6	1.2	.3	.0	.2	16.1	
.4	.1	1.7	5.7	9.0	4.3	.6	.3	.3	.1	27.1	
.0	.0	.1	.7	1.1	.2	.7	.0	.0	.1	3.0	
.0	.0	.0	.1	.2	.1	.0	.0	.0	.1	.8	
.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.5	
.0	.0	.0	.3	.3	.1	.1	.0	.0	.0	1.2	
.0	.0	.1	.4	.7	.4	.0	.1	.0	.0	1.0	
.0	.0	.2	.9	.7	.4	.1	.0	.0	.0	2.9	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.1	.0	.0	.1	.4	.2	.0	.0	.0	.1	1.0	
.8	.2	3.1	11.7	18.1	8.2	2.2	.7	.3	.6	53.5	988
.8	.2	3.1	11.8	18.3	8.3	2.2	.7	.3	.6	53.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH (5/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>3	>1	>1/2	>1/4	>50YD	>0
>6500	.6	.9	.9	.9	.9	.9	.9	.9
>5000	1.0	1.0	1.6	1.6	1.6	1.6	1.6	1.6
>3500	2.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
>2000	8.8	12.4	12.5	12.6	12.6	12.6	12.6	12.6
>1000	17.9	28.7	30.7	30.7	30.8	30.8	30.8	30.8
>600	23.8	38.4	42.2	42.4	42.5	42.5	42.5	42.5
>300	25.1	40.5	45.1	45.3	45.5	45.5	45.5	45.5
>150	25.2	40.6	45.2	45.5	45.7	45.7	45.7	45.7
>0	25.2	40.7	45.8	46.1	46.4	46.5	46.5	46.5
TOTAL	253	409	460	463	466	467	467	467

TOTAL NUMBER OF OBS: 1005

PCT FREQ NH (5/8) 53.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	9	TOTAL OBS
3.0	6.4	17.1	14.1	13.1	9.4	11.5	8.7	13.8	.7	1075

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1/2<1	PCP	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	NO PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.1	.1	.0	.0	.0	.0	.0	.1	.0	.0	.2	
1<2	PCP	.1	.1	.0	.0	.1	.0	.0	.1	.0	.0	.3	
	NO PCP	.0	.3	.1	.0	.1	.0	.0	.0	.0	.0	.4	
	TOT %	.1	.3	.1	.0	.1	.0	.0	.1	.0	.0	.8	
2<5	PCP	.8	1.0	.1	.0	.0	.2	.1	.2	.0	.1	2.4	
	NO PCP	.9	1.4	.1	.0	.0	.0	.3	.2	.0	.0	2.9	
	TOT %	1.8	2.3	.3	.0	.0	.2	.4	.4	.0	.1	5.4	
5<10	PCP	1.1	1.5	.5	.1	.0	.0	.1	.1	.0	.0	3.3	
	NO PCP	7.8	12.4	1.2	.3	.2	.1	.5	.7	.0	.1	23.4	
	TOT %	8.9	13.9	1.7	.5	.2	.1	.5	.8	.0	.1	26.7	
10+	PCP	.3	.9	.1	.1	.0	.0	.1	.3	.0	.1	2.0	
	NO PCP	20.4	30.6	3.3	1.0	.9	1.5	1.3	1.1	.0	1.7	64.8	
	TOT %	20.8	31.5	3.4	1.0	.9	1.5	1.4	1.4	.0	1.8	66.8	
TOT OBS													1433
TOT PCT													31.7 48.2 5.5 1.5 1.2 1.4 2.3 5.7 .0 2.1 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	11-21	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.4	
	22+	.1	.3	.1	.0	.0	.0	.0	.0	.0	.0	.4	
	TOT %	.2	.5	.1	.0	.1	.0	.0	.1	.0	.0	1.0	
2<5	0-3	.0	.1	.0	.0	.0	.0	.1	.0	.0	.1	.4	
	4-10	.6	.8	.2	.0	.0	.1	.1	.2	.0	.0	2.2	
	11-21	.9	1.2	.0	.0	.0	.0	.1	.1	.0	.0	2.3	
	22+	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.3	
	TOT %	1.7	2.3	.3	.0	.0	.1	.3	.3	.0	.1	5.2	
5<10	0-3	.0	.2	.0	.1	.0	.0	.1	.0	.0	.2	.7	
	4-10	2.1	2.9	.7	.2	.1	.1	.4	.4	.0	.0	6.9	
	11-21	4.4	7.7	.7	.0	.0	.0	.4	.4	.0	.0	13.4	
	22+	.7	1.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	
	TOT %	7.3	11.8	1.3	.3	.2	.2	.5	.9	.0	.2	22.7	
10+	0-3	.9	1.2	.4	.3	.2	.3	.2	.4	.0	2.7	6.7	
	4-10	10.3	15.3	3.0	1.1	.7	1.1	.7	3.4	.0	.0	35.5	
	11-21	9.7	14.2	.5	.0	.1	.1	.3	1.3	.0	.0	26.3	
	22+	.7	1.2	.0	.0	.0	.0	.1	.1	.0	.0	2.1	
	TOT %	21.6	31.9	3.9	1.5	.9	1.5	1.4	5.2	.0	2.7	70.5	
TOT OBS													2071
TOT PCT													31.0 46.8 5.7 1.4 1.2 1.8 2.2 6.5 .0 2.9 100.0

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH < 5/8 ANY HGT	TOTAL OBS
00003	.4	.0	3.6	11.8	16.5	8.6	2.9	.7	.0	.4	44.6	55.2	279
06009	.3	.0	3.2	10.9	17.0	9.9	2.2	.3	.6	1.0	46.5	53.5	312
12015	1.6	.4	2.1	10.7	19.3	8.2	2.5	.4	.4	.0	45.7	54.3	243
18021	.9	.5	2.8	11.7	17.3	6.1	1.4	.0	.0	.9	41.6	58.4	214
TOT	8	2	31	118	163	88	24	7	3	6	470	578	1048
PCT	.3	.2	3.0	11.3	17.5	8.4	2.3	.7	.3	.6	44.8	55.2	100.0

TABLE 11

PERCENT FREQUENCY VS BY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.3	.2	1.0	5.6	22.3	70.0	480
06009	.0	.2	1.1	4.4	21.3	73.0	656
12015	.4	.7	.9	5.1	25.7	67.2	448
18021	.2	.0	1.0	5.7	21.7	71.4	511
TOT	7	5	21	108	473	1481	2095
PCT	.3	.2	1.0	5.2	22.6	70.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF V-BY (NH) AND/OR  
CEILING HGT (FEET, NH > 4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL OBS
00003	.4	4.1	19.2	27.7	53.1	271
06009	.3	3.7	18.6	31.4	50.0	296
12015	1.7	4.3	20.1	28.6	51.3	234
18021	1.0	4.4	19.1	25.0	55.9	204
TOT	8	41	193	286	526	1005
PCT	.8	4.1	19.2	28.5	52.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.4	.2	.1	.1	8	.9
85/89	.0	.0	.0	.1	1.4	2.4	1.1	.2	48	5.2
80/84	.0	.0	.0	.0	1.3	18.0	33.2	8.7	570	61.2
75/79	.0	.0	.0	.0	.0	2.4	16.2	14.0	303	32.5
70/74	.0	.0	.0	.0	.0	.0	.1	.1	2	.2
TOTAL	0	0	0	1	29	214	472	215	931	100.0
PCT	.0	.0	.0	.1	3.1	23.0	50.7	23.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.1	.7	.1	.0	.0	.0	.0	.0	.0	.0
85/89	1.9	2.3	.2	.2	.1	.0	.0	.2	.0	.2
80/84	17.0	32.5	3.1	.9	.4	1.2	1.2	3.6	.0	1.3
75/79	12.4	14.8	1.6	.0	.3	.5	1.0	1.3	.0	.5
70/74	.0	.0	.0	.0	.0	.1	.0	.1	.0	.0
TOTAL	31.3	50.3	5.0	1.2	.8	1.8	2.2	5.3	.0	2.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	91	86	83	80	77	75	73	80.1	599
06009	90	87	86	81	77	75	73	81.2	937
12015	90	84	83	80	77	75	75	81.0	552
18021	85	83	82	79	76	74	73	79.3	710
TOT	91	87	84	80	77	75	73	80.3	2798

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	1.2	21.8	53.5	23.5	85	243
06009	.0	.4	8.7	34.3	40.8	15.9	81	277
12015	.0	.0	.9	19.6	53.6	26.0	85	235
18021	.0	.0	.0	14.4	56.7	28.9	86	194
TOT	0	1	29	222	479	218	84	949

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND TMR OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	M FOG	NO FOG
11/13	.0	.0	.0	.1	.1	2	.0	.1
9/10	.0	.1	.1	.3	.1	10	.0	.7
7/8	.0	.1	.1	.3	.4	12	.0	.9
6	.0	.1	.1	.1	.1	7	.0	.5
5	.1	.4	.7	.7	.2	28	.0	2.1
4	.2	.5	1.6	.9	.2	46	.0	3.4
3	.0	.2	1.2	.1	.1	22	.0	1.6
2	.0	1.3	0.4	.3	.0	108	.0	8.0
1	.0	2.4	4.0	.4	.0	93	.0	6.9
0	.4	9.1	13.1	.1	.0	307	.0	22.8
-1	.0	7.2	5.1	.1	.0	168	.0	12.5
-2	.6	10.5	10.2	.0	.0	287	.0	21.3
-3	.6	4.5	1.3	.0	.0	89	.0	6.6
-4	.7	4.8	1.0	.0	.0	89	.0	6.6
-5	.4	2.6	.3	.0	.0	45	.0	3.3
-6	.2	.7	.0	.0	.0	13	.0	1.0
-7/-8	.4	.8	.1	.0	.0	17	.0	1.3
-9/-10	.2	.1	.0	.0	.0	4	.0	.3
-11/-13	.1	.0	.0	.0	.0	1	.0	.1
TOTAL	53	615	614	48	18	1348	0	1348
PCT	3.9	45.6	45.3	3.6	1.3	100.0		100.0

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.5	.2	.0	.0	.0	.7	.3	1.7	.1	.0	.0	.0	2.1
1-2	.0	5.7	2.4	.0	.0	.0	8.0	.0	7.1	4.8	.0	.0	.0	11.9
3-4	.0	2.4	5.7	.0	.0	.0	8.1	.3	5.1	11.9	.0	.0	.0	17.2
5-6	.0	.4	4.6	.3	.0	.0	5.7	.3	1.9	8.4	1.4	.0	.0	12.0
7	.0	.0	1.7	.7	.0	.0	2.4	.0	.8	5.0	1.5	.0	.0	7.3
8-9	.0	.0	1.7	.0	.0	.0	1.7	.0	.3	1.3	1.9	.0	.0	3.5
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.0	.0	.6
12	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.2	.3	.0	.2	.0	.0	.0	.1	.0	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	9.3	16.2	1.3	.0	.0	27.1	.8	16.8	31.9	5.2	.0	.0	34.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3	.3	.9	.0	.0	.0	.0	.8
1-2	.0	2.3	.0	.0	.0	.0	2.3	.0	.0	.0	.0	.0	.0	.9
3-4	.0	.9	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0
5-6	.0	1.0	.7	.0	.0	.0	1.7	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.3	.7	.0	.0	.0	5.2	.3	1.2	.1	.0	.0	.0	1.3

PERIOD: (OVER-ALL) 1963-1972

DECEMBER  
TABLE 18 (CONT)AREA 0006 NATUNA ISLAND  
3.5N 107.1E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.6
1-2	.0	.5	.0	.0	.0	.0		.2	.0	.1	.0	.0	.0	.0		.1
3-4	.0	.2	.0	.0	.0	.0		.2	.0	.3	.3	.0	.0	.0		.6
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.0	.3	.0	.0	.0		.3
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.3	.0	.0	.0	.0	.0		.3
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.0	.7	.0	.0	.0	.0		.7	.0	1.2	.6	.0	.0	.0		1.8

HGT	H							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.2	.3	.0	.0	.0	.0		.5	.1	.0	.0	.0	.0	.0		.1	
1-2	.3	.5	.6	.0	.0	.0		1.3	.0	1.9	.6	.0	.0	.0		2.4	
3-4	.3	.0	.0	.0	.0	.0		.3	.0	.8	.1	.0	.0	.0		.9	
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.1	.1	.0	.0	.0		.1	
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.3	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.8	.8	.8	.0	.0	.0		2.4	.1	2.7	.8	.0	.0	.0		3.5	97.0

## WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	3.8	3.9	.3	.0	.0	.0	7.7	
1-2	.6	18.8	8.3	.0	.0	.0	27.6	
3-4	.6	9.7	18.0	.0	.0	.0	28.2	
5-6	.3	3.9	14.1	1.7	.0	.0	19.9	
7	.0	.8	6.6	2.2	.0	.0	9.7	
8-9	.0	.3	3.3	1.9	.0	.0	5.5	
10-11	.0	.0	.3	.3	.0	.0	.6	
12	.0	.0	.0	.3	.0	.0	.3	
13-16	.0	.3	.0	.0	.0	.0	.3	
17-19	.0	.0	.0	.3	.0	.0	.3	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.0	37.6	50.8	6.6	.0	.0	100.0	362

PERIOD: (OVER-ALL) 1949-1972

## TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.8	12.3	13.6	5.5	3.3	1.1	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	294	3
6-7	.0	1.7	12.0	9.6	4.6	3.2	.7	.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	245	5
8-9	.0	.4	1.7	4.0	2.6	.9	.4	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	109	7
10-11	.0	.1	.1	.8	.8	1.1	.3	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	29	8
12-13	.0	.0	.1	.3	.3	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	8
>13	.0	.0	.0	.4	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	8
INDET	2.6	2.0	1.5	1.8	.5	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	68	3
TOTAL	41	123	220	170	102	63	18	9	7	2	0	0	0	0	0	0	0	0	0	757	4
PCT	5.4	16.5	29.1	22.5	13.5	8.3	2.4	1.2	.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1920-1973  
(OVER-ALL) 1855-1973

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OBS TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	3.4	2.3	1.8	.0	.0	.0	.0	7.2	4.0	2.0	.2	.0	.2	*	86.9
NE	2.5	2.6	.9	.0	.0	.0	.0	5.8	3.4	2.0	.1	.0	.2	*	88.5
E	2.8	1.3	1.2	.0	.0	.0	.0	5.3	4.0	.8	.1	.0	.0	*	89.8
SE	3.4	2.1	.8	.0	.0	.0	.0	6.3	2.7	2.4	*	.0	.4	.0	88.4
S	3.2	1.3	1.3	.0	.0	.0	.0	5.8	2.4	1.9	.1	.0	1.4	.0	88.4
SW	4.3	1.3	1.0	.0	.0	.0	.0	6.6	3.6	2.6	*	.0	.6	.0	86.7
W	8.0	3.2	2.7	.0	.0	.0	.0	13.8	3.2	1.3	*	.0	.3	.0	81.5
NW	8.7	4.4	2.4	.0	.0	.0	.0	14.9	6.0	1.7	.1	.0	.3	.0	77.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.4	1.4	*	.0	.0	.0	.0	2.8	1.8	2.4	.1	.0	1.3	.0	91.5
TOT PCT	3.0	1.8	1.0	.0	.0	.0	.0	5.7	2.9	1.7	.1	.0	.5	*	89.3
TOT OBS: 18612															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OBS TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	3.0	1.6	1.0	.0	.0	.0	.0	5.5	3.6	.5	.1	.0	.5	.0	89.8
06009	3.3	2.1	.9	.0	.0	.0	.0	6.2	2.8	.1	.1	.0	.5	.1	90.3
12015	2.5	1.7	1.2	.0	.0	.0	*	5.4	2.8	2.3	.1	.0	.4	.0	89.0
18021	3.0	1.7	.9	.0	.0	.0	.0	5.6	2.1	4.5	.2	.0	.4	*	7.5
TOT PCT	3.0	1.8	1.0	.0	.0	.0	*	5.7	2.9	1.7	.1	.0	.4	*	89.3
TOT OBS: 18989															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	1.2	6.5	3.7	.4	*	.0		11.6	7.4	11.3	11.2	10.4	13.2	12.6	12.5	11.5	11.8
NE	2.0	12.6	8.5	.7	*	.0		23.8	7.7	24.6	23.4	23.0	22.5	24.1	26.6	23.1	21.0
E	1.3	7.6	.9	.1	*	.0		6.8	6.6	6.9	8.1	7.2	5.9	5.9	7.9	6.9	7.0
SE	1.2	3.9	.5	*	.0	.0		5.7	6.4	5.8	7.3	6.0	5.3	4.9	5.8	5.3	6.0
S	2.1	10.8	5.7	.1	.0	.0		16.3	7.0	17.5	19.1	17.9	16.4	14.3	16.7	15.0	16.8
SW	1.9	11.5	4.2	.2	*	.0		17.9	7.5	17.4	18.2	17.2	19.8	18.3	18.2	17.3	18.0
W	.9	3.6	1.2	.1	*	.0		5.9	7.6	5.5	5.4	6.0	6.3	6.6	4.8	5.6	5.9
NW	.8	2.6	.8	.1	*	.0		4.2	7.6	3.7	3.6	4.2	4.7	4.9	4.1	4.2	4.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	7.4							7.4	.0	7.2	4.3	6.1	5.9	8.5	3.4	11.1	9.1
TOT OBS							34231		8.0	3859	1384	7795	3951	3284	1292	4788	3678
TOT PCT	18.9	56.0	23.4	1.7	*	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	4.0	6.2	1.3	.1	.0		11.6	7.4	11.2	11.4	12.6	11.6	
NE	7.1	13.7	2.8	.1	.0		23.8	7.7	24.3	24.1	24.6	22.2	
E	4.0	2.6	.2	*	*		6.8	6.6	7.2	6.7	6.3	6.9	
SE	3.6	2.0	.1	.0	.0		5.7	6.4	6.2	5.8	5.1	5.6	
S	6.8	9.0	.8	*	.0		16.6	7.0	17.9	17.4	14.8	15.8	
SW	6.9	10.0	1.0	*	.0		17.9	7.5	17.6	18.0	18.3	17.6	
W	2.8	2.7	.4	*	.0		5.9	7.6	5.5	6.1	6.2	5.7	
NW	2.2	1.8	.3	*	.0		4.2	7.6	3.7	4.3	4.6	4.3	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	7.4						7.4	.0	6.4	6.1	7.5	10.2	
TOT OBS						34231		8.0	7443	11746	6576	8466	
TOT PCT	44.9	48.0	6.9	.3	*		100.0		100.0	100.0	100.0	100.0	



PERIOD: (PRIMARY) 1920-1973  
(OVER-ALL) 1855-1973

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+			
00003	6.4	11.3	56.6	24.1	1.5	.1	.0	8.1	100.0	7443
06009	8.1	11.4	55.0	23.8	1.8	.1	.0	8.3	100.0	11746
12015	7.5	11.4	55.6	23.5	2.0	.0	.0	8.1	100.0	6576
18021	10.2	11.7	57.0	19.6	1.5	.0	.0	7.4	100.0	8466
TOT								8.0		36231
PCT	7.4	11.4	56.0	23.4	1.7	.0	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.4	2.2	4.6	2.7		5.2
NE	4.1	6.6	11.2	4.9		4.9
E	1.4	2.1	2.6	.9		4.6
SE	1.0	1.2	2.1	.8		4.9
S	2.9	4.0	6.9	2.8		5.1
SW	2.2	3.5	7.6	3.7		5.2
W	.5	1.0	2.5	1.8		5.9
NW	.4	.6	1.6	1.2		5.8
VAR	.0	.0	.0	.0		4.3
CALM	2.0	1.8	2.3	.6		5.1
TOT OBS					12035	
TOT PCT	14.1	23.1	41.4	19.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 297	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+ ANY HGT	NH <5/8 TOTAL OBS
N	.1	.1	.2	1.0	1.5	.8	.2	.1	.0	.0	7.0
NE	.1	.1	.4	1.9	3.7	2.0	.4	.1	.1	.1	18.0
E	.0	.0	.1	.5	.6	.3	.1	.0	.0	.0	5.4
SE	.0	.0	.1	.3	.5	.2	.1	.1	.0	.0	3.8
S	.0	.0	.2	.7	1.8	.9	.3	.0	.0	.0	12.5
SW	.0	.0	.3	1.2	2.0	1.1	.5	.1	.0	.0	11.7
W	.1	.0	.1	.6	1.0	.4	.1	.1	.0	.0	3.4
NW	.0	.0	.1	.5	.7	.3	.1	.0	.0	.0	2.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.1	.3	.4	.3	.1	.1	.0	.0	5.5
TOT OBS											12035
TOT PCT	.4	.2	1.6	7.0	12.2	6.3	1.9	.7	.2	.3	69.3

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				VSBY (NM)				OR >0
	OR >10	OR >5	OR >3	OR >1	OR >1/2	OR >1/4	OR >50YD	OR >0	
OR >6500	.4	.5	.5	.5	.5	.5	.5	.5	.5
OR >5000	.9	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
OR >3500	2.4	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0
OR >2000	7.1	9.0	9.3	9.3	9.4	9.4	9.4	9.4	9.4
OR >1000	19.2	20.2	21.3	21.4	21.4	21.4	21.4	21.4	21.4
OR >600	19.0	26.3	28.1	28.2	28.3	28.3	28.3	28.3	28.4
OR >300	19.8	27.5	29.6	29.8	29.9	29.9	29.9	29.9	29.9
OR >150	19.8	27.7	29.8	30.0	30.1	30.1	30.1	30.1	30.1
OR >0	19.9	27.8	30.0	30.3	30.4	30.5	30.5	30.5	30.5

TOTAL NUMBER OF OBS: 12279

PCT FREQ NH <5/8: 69.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
4.0	12.4	21.3	18.4	13.0	8.6	7.9	6.0	8.2	.3	13227

PERIOD: (PRIMARY) 1940-1973  
(OVER-ALL) 1855-1973

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.	.	.	.	.0	.	.	.0	.0	.0	.1	
	NO PCP	.	.	.	.0	.	.	.	.	.0	.0	.1	
	TOT %	.	.	.	.	.	.	.	.	.0	.0	.2	
1/2<1	PCP	.	.	.	.	.	.	.	.	.0	.	.1	
	NO PCP	.	.	.	.	.	.	.	.	.0	.0	.1	
	TOT %	.	.1	.	.	.	.	.	.	.0	.	.2	
1<2	PCP	.	.1	.	.	.	.	.	.	.0	.0	.3	
	NO PCP	.	.1	.	.	.	.	.	.	.0	.0	.2	
	TOT %	.1	.1	.	.1	.1	.1	.	.1	.0	.	.5	
2<5	PCP	.2	.2	.1	.	.1	.2	.2	.1	.0	.	1.1	
	NO PCP	.3	.4	.1	.1	.2	.3	.1	.1	.0	.	1.6	
	TOT %	.5	.7	.2	.1	.3	.5	.3	.2	.0	.	2.8	
5<10	PCP	.2	.3	.1	.1	.3	.4	.2	.2	.0	.	2.1	
	NO PCP	2.2	4.7	.9	.7	2.1	2.3	.9	.6	.0	.5	14.9	
	TOT %	2.4	5.2	1.0	.8	2.4	2.7	1.2	.8	.0	.5	17.0	
10+	PCP	.2	.4	.1	.1	.2	.4	.2	.2	.0	.	1.9	
	NO PCP	8.2	19.4	5.7	4.4	13.9	13.7	4.0	2.7	.0	5.4	77.5	
	TOT %	8.5	19.8	5.8	4.5	14.1	14.1	4.3	2.9	.0	5.4	79.4	
TOT OBS													18801
TOT PCT													11.4 25.9 7.0 5.5 16.9 17.4 9.9 4.0 .0 6.0 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.	.	.	.	.	.	.	.	.0	.	.	
	4-10	.	.1	.	.	.	.	.	.	.	.	.1	
	11-21	.	.	.	.	.	.	.	.	.	.	.1	
	22+	.	.0	.	.0	.0	.	.	.	.0	.	.1	
	TOT %	.	.1	.	.	.	.1	.	.	.0	.	.3	
1/2<1	0-3	.0	.0	.	.	.0	.0	.0	.0	.0	.	.	
	4-10	.	.	.0	.	.	.	.	.	.0	.	.1	
	11-21	.	.	.	.	.	.	.	.	.0	.	.1	
	22+	.0	.	.	.0	.0	.	.	.	.0	.	.	
	TOT %	.	.	.	.	.	.	.	.	.0	.	.2	
1<2	0-3	.	.	.0	.	.	.	.	.	.0	.	.1	
	4-10	.	.	.	.	.	.	.	.	.0	.	.2	
	11-21	.	.1	.	.	.	.	.	.	.0	.	.2	
	22+	.	.	.	.0	.0	.	.	.	.0	.	.1	
	TOT %	.1	.1	.	.1	.1	.1	.1	.1	.0	.	.6	
2<5	0-3	.	.	.0	.	.	.1	.0	.	.0	.1	.4	
	4-10	.2	.3	.1	.1	.2	.3	.2	.1	.0	.	1.4	
	11-21	.2	.4	.	.	.1	.1	.1	.1	.0	.	1.1	
	22+	.	.	.	.	.0	.	.	.	.0	.	.1	
	TOT %	.5	.8	.2	.1	.3	.5	.3	.2	.0	.1	3.0	
5<10	0-3	.1	.2	.1	.1	.2	.2	.1	.1	.0	.5	1.8	
	4-10	.8	1.7	.5	.5	1.2	1.4	.6	.4	.0	.	7.0	
	11-21	1.0	2.3	.2	.1	.6	.6	.3	.2	.0	.	5.9	
	22+	.1	.3	.	.	.	.1	.	.	.0	.	.6	
	TOT %	2.1	4.4	.8	.7	2.0	2.3	1.0	.7	.0	.5	14.7	
10+	0-3	1.0	1.6	1.1	1.0	1.4	1.4	.7	.7	.0	6.6	13.5	
	4-10	5.1	10.9	3.9	3.2	9.7	9.9	2.8	2.0	.0	.	47.3	
	11-21	2.4	6.5	.7	.4	3.2	3.4	.7	.4	.0	.	17.6	
	22+	.2	.4	.	.0	.1	.1	.	.	.0	.	.8	
	TOT %	8.7	19.3	5.7	4.6	14.3	14.7	4.3	3.1	.0	6.6	81.3	
TOT OBS													25172
TOT PCT													11.5 24.3 6.8 5.3 16.8 17.6 9.7 4.1 .0 7.2 100.0

PERIOD: (PRIMARY) 1920-1973  
(OVER-ALL) 1855-1973

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TABLE 10

PERCENT FREQUENCY OF CRICING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 209	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY MGT	TOTAL OBS
00003	.2	.2	1.7	6.9	11.4	6.1	2.0	.9	.1	.2	29.7	70.3	3536
06009	.3	.2	1.6	6.5	12.0	6.6	1.7	.5	.2	.2	30.0	70.0	3833
12015	.5	.2	1.4	7.3	11.8	5.7	2.0	.4	.3	.2	30.0	70.0	2891
18021	.5	.2	1.4	5.7	10.8	5.6	1.3	.6	.1	.4	28.9	73.1	2641
TOT PCT	.4	.2	1.5	6.6	11.6	6.1	1.8	.6	.2	.3	29.3	70.7	12901 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.4	.2	.4	2.6	13.7	82.5	6205
06009	.2	.2	.5	2.6	13.0	83.5	7987
12015	.3	.3	.7	3.9	17.1	77.8	5991
18021	.2	.1	.6	3.0	15.4	80.8	6001
TOT PCT	.3	.2	.6	3.0	14.0	81.4	25554 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ ANDS+	NM <5/8 AND 5+	TOTAL OBS
00003	.2	2.3	10.9	20.3	68.8	3388
06009	.3	2.3	10.8	21.0	68.1	3663
12015	.6	2.3	12.3	20.1	67.6	2741
18021	.5	2.2	10.3	19.1	70.6	2487
TOT PCT	.4	2.3	11.1	20.2	68.7	12279 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	*	*	*	*	.0	*	*
90/96	.0	.0	*	.2	.9	.5	.2	*	1.8	*
85/89	.0	.0	.0	.1	2.5	9.8	2.7	.5	15.7	*
80/84	.0	.0	.0	*	1.3	26.0	33.1	6.8	67.2	*
75/79	.0	.0	.0	.0	*	1.7	8.2	5.5	15.1	*
70/74	.0	.0	.0	.0	.0	*	.1	.2	.2	*
TOTAL PCT	.0	.0	*	.3	4.7	37.7	44.3	13.0	11244	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	.0	*	*	*	*	.0	.0	.0	.0
90/96	.1	.4	.1	.1	.4	.3	.1	*	.0	.2
85/89	.9	2.3	1.1	1.2	4.0	3.7	.8	.3	.0	1.4
80/84	6.1	17.3	4.8	3.4	11.6	12.1	4.1	2.6	.0	5.1
75/79	3.5	6.6	1.1	.2	.5	1.1	.9	.9	.0	.3
70/74	*	*	.0	.0	*	.1	.1	*	.0	.0
TOTAL	10.6	26.7	7.1	5.0	16.6	17.3	5.9	3.9	.0	7.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	97	89	86	82	78	75	72	81.9	7434
06009	97	91	88	83	78	76	68	83.2	11356
12015	97	87	85	82	78	76	68	81.6	6806
18021	90	85	84	81	78	75	70	81.1	8492
TOT	97	89	86	82	78	76	68	82.1	34088

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.1	1.9	32.3	51.2	14.5	82	3083
06009	.0	1.0	12.2	49.3	29.0	8.5	78	3380
12015	.0	.1	1.9	37.8	46.9	13.3	82	2812
18021	.0	*	1.1	28.5	59.6	10.8	83	2405
TOT	0	38	554	4384	5081	1485	81	11342

PERIOD: (PRIMARY) 1920-1973  
(OVER-ALL) 1855-1973

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TABLE 17

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PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	N FOG	WD FOG
14/16	.0	.0	.0	.0	.0	.0	.0	.0	3	.0	.0
11/13	.0	.0	.0	.0	.0	.1	.1	.0	36	.0	.2
9/17	.0	.0	.0	.0	.1	.1	.2	.1	66	.0	.4
7/8	.0	.0	.0	.0	.1	.3	.3	.1	155	.0	.9
5	.0	.0	.0	.0	.1	.2	.2	.0	82	.0	.5
4	.0	.0	.0	.1	.5	.7	.6	.0	332	.0	1.9
3	.0	.0	.0	.2	1.4	1.6	.6	.0	678	.0	3.9
2	.0	.0	.0	.1	.6	.9	.2	.0	333	.0	1.9
1	.0	.0	.0	.7	9.4	3.1	.2	.0	1666	.0	9.5
0	.0	.0	.0	1.0	3.3	1.7	.0	.0	1058	.0	6.0
-1	.0	.0	.2	4.0	14.6	3.0	.0	.0	4171	.0	23.8
-2	.0	.0	.1	2.4	7.9	1.1	.0	.0	1992	.0	11.3
-3	.0	.0	.3	4.5	13.4	.7	.0	.0	3323	.0	18.9
-4	.0	.0	.1	1.9	4.0	.2	.0	.0	1105	.0	6.3
-5	.0	.0	.4	2.9	4.3	.1	.0	.0	1358	.0	7.7
-6	.0	.0	.3	1.8	1.4	.1	.0	.0	622	.0	3.5
-7/-8	.0	.0	.1	.8	.3	.0	.0	.0	210	.0	1.2
-9/-10	.0	.0	.3	.8	.3	.0	.0	.0	250	.0	1.4
-11/-13	.0	.0	.2	.2	.1	.0	.0	.0	68	.0	.4
-14/-16	.0	.0	.1	.0	.0	.0	.0	.0	32	.0	.2
TOTAL	.0	.0	.0	.0	.0	.0	.0	.0	17542	.0	.0
PCT	.0	.1	2.2	21.6	59.6	13.9	2.5	.2	100.0	.1	99.9

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.0	.0	.0	.0	.0	.0	.6	1.5	.2	.0	.0	.0	.2
1-2	.2	2.8	.7	.0	.0	.0	3.7	.6	6.4	2.8	.0	.0	.0	9.8
3-4	.0	1.1	1.6	.1	.0	.0	2.9	.3	3.2	4.9	.1	.0	.0	8.5
5-6	.0	.2	.9	.0	.0	.0	1.2	.0	.7	3.2	.3	.0	.0	4.3
7	.0	.0	.3	.1	.0	.0	.5	.0	.2	1.3	.3	.0	.0	1.8
8-9	.0	.0	.2	.1	.0	.0	.3	.0	.0	.4	.2	.0	.0	.7
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	4.8	3.9	.4	.0	.0	9.5	1.5	12.0	13.0	1.1	.0	.0	27.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.8	.0	.0	.0	.0	1.4	.3	.4	.0	.0	.0	.0	.7
1-2	.3	3.1	.5	.0	.0	.0	3.9	.3	1.9	.3	.0	.0	.0	2.4
3-4	.0	.9	.5	.0	.0	.0	1.5	.0	.0	.4	.0	.0	.0	1.0
5-6	.0	.2	.3	.0	.0	.0	.5	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	.1	.3	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	5.0	1.4	.0	.0	.0	7.4	.6	3.0	.7	.0	.0	.0	4.3

PERIOD: (OVER-ALL) 1963-1973

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TABLE 18 (CONT)

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PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.3	.1	.0	.0	.0	1.6	.5	.1	.1	.0	.0	.0	1.6
1-2	.4	5.6	1.6	.0	.0	.0	7.6	.7	1.0	1.6	.0	.0	.0	8.3
3-4	.1	3.1	2.2	.1	.0	.0	5.4	.1	2.3	2.6	.1	.0	.0	5.0
5-6	.0	.3	1.1	.0	.0	.0	1.5	.0	.4	1.3	.0	.0	.0	1.8
7	.0	.0	.3	.0	.0	.0	.3	.0	.0	.5	.1	.0	.0	.5
8-9	.0	.0	.1	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	10.3	5.4	.1	.0	.0	16.5	1.2	9.9	6.1	.1	.0	.0	17.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	.9	.0	.0	.0	.0	1.2	.2	.2	.0	.0	.0	.0	.4	1.5
1-2	.3	2.1	.5	.0	.0	.0	3.0	.2	1.0	.3	.0	.0	.0	1.5	1.5
3-4	.1	.7	.7	.0	.0	.0	1.5	.0	.5	.3	.0	.0	.0	.8	.8
5-6	.0	.2	.2	.0	.0	.0	.4	.0	.1	.2	.0	.0	.0	.3	.3
7	.0	.0	.1	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.1	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	3.9	1.6	.1	.0	.0	6.3	.4	1.8	.8	.1	.0	.0	3.1	92.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	11.1	6.8	.4	.0	.0	.0	18.3	18.3
1-2	3.2	28.5	8.2	.0	.0	.0	40.2	40.2
3-4	.6	12.2	13.2	.3	.0	.0	26.4	26.4
5-6	.1	2.1	7.3	.4	.0	.0	10.0	10.0
7	.0	.3	2.7	.5	.0	.0	3.5	3.5
8-9	.0	.0	.8	.3	.0	.0	1.2	1.2
10-11	.0	.1	.1	.1	.0	.0	.3	.3
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.1	.0	.0	.1	.1
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	15.0	50.4	32.7	1.8	.1	.0	100.0	5085

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	7.0	26.8	17.1	5.0	1.2	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5511	2
6-7	.1	2.3	7.1	6.0	2.4	.9	.5	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1833	4
8-9	.1	.5	1.1	1.8	1.3	.6	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	580	6
10-11	.0	.3	.2	.3	.3	.2	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	157	6
12-13	.0	.0	.3	.1	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	60	6
>13	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	8
INDEX	9.8	2.4	1.6	.6	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1429	1
TOTAL																				9385	3
PCT	17.0	32.3	27.4	13.9	5.7	2.1	.8	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1920-1973  
(OVER-ALL) 1859-1973

AREA 0000 NATUNA ISLAND  
3.0N 107.0E

TABLE 20

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	.0
91/92	.0	.1	.1	.1	.1	.2	.0	.1	.0	.0	.0	.0	21	.1
89/90	.0	.0	.1	.7	1.5	1.2	.6	.3	.3	.3	.3	.0	142	.4
87/88	.1	.1	.6	5.4	11.6	9.3	3.2	1.7	2.0	2.7	1.8	.2	1077	3.3
85/86	.8	1.0	3.6	24.2	37.8	33.0	20.3	13.6	14.2	17.6	10.4	2.3	4941	15.1
83/84	4.6	6.0	17.9	37.7	35.6	40.1	46.7	48.6	47.4	44.4	32.7	14.0	10300	31.4
81/82	32.7	36.6	47.7	26.6	11.6	14.6	25.9	32.4	31.7	30.5	43.1	42.6	10258	31.3
79/80	37.8	37.1	23.4	4.2	1.3	1.0	2.5	2.5	2.6	3.4	4.2	9.7	4180	12.8
77/78	18.9	14.9	5.2	.7	.2	.3	.4	.6	1.2	.8	1.7	8.6	1434	4.4
75/76	3.9	3.1	1.2	.2	.2	.2	.4	.2	.3	.3	.3	1.5	312	1.0
73/74	.8	.6	.2	.0	.1	.1	.0	.1	.1	.0	.4	.3	73	.2
71/72	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	31	.1
69/70	.1	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	10	.0
67/68	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0
65/66	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
63/64	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
61/62	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
59/60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
57/58	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
55/56	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
53/54	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
51/52	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
49/50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	2440	2437	2842	2739	2854	2784	2640	2703	2722	2790	2740	2691	32782	100.0
MEAN	79.7	79.9	81.3	83.6	84.6	84.3	83.4	83.1	83.1	83.2	82.4	80.7	82.4	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

HR	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1011	1011	1011	1009	1010	1011	1011	1010	1011	1605
FEB	1011	1011	1011	1009	1010	1010	1011	1010	1010	1523
MAR	1011	1010	1010	1009	1010	1010	1010	1009	1010	1714
APR	1010	1010	1009	1008	1009	1009	1010	1008	1009	1699
MAY	1009	1009	1009	1007	1008	1009	1009	1008	1009	1722
JUN	1009	1009	1009	1008	1009	1009	1009	1009	1009	1602
JUL	1009	1009	1009	1008	1009	1009	1009	1008	1009	1563
AUG	1010	1009	1009	1008	1009	1009	1009	1008	1009	1612
SEP	1010	1010	1009	1008	1009	1009	1010	1009	1009	1601
OCT	1010	1010	1010	1008	1010	1010	1010	1009	1010	1729
NOV	1010	1010	1010	1008	1010	1010	1010	1009	1010	1648
DEC	1010	1011	1010	1009	1010	1010	1010	1009	1010	1554
ANN	1010	1010	1010	1008	1009	1010	1010	1009	1010	19572
OBS	3566	1376	4541	1576	3054	1168	2790	1501		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	1005	1006	1007	1009	1011	1012	1014	1014	1015
FEB	1005	1005	1007	1009	1010	1012	1014	1013	1015
MAR	1004	1005	1007	1009	1010	1011	1013	1013	1014
APR	1004	1005	1006	1008	1009	1011	1012	1015	1014
MAY	1003	1004	1005	1007	1009	1010	1012	1012	1013
JUN	1004	1005	1006	1008	1009	1010	1011	1011	1012
JUL	1004	1004	1006	1008	1009	1010	1011	1012	1013
AUG	1004	1004	1006	1008	1009	1010	1012	1012	1013
SEP	1004	1005	1006	1008	1009	1011	1012	1012	1013
OCT	1005	1005	1007	1009	1010	1011	1012	1013	1014
NOV	1005	1005	1006	1008	1010	1011	1013	1013	1014
DEC	1005	1005	1006	1009	1010	1011	1013	1014	1015

PERIOD: (PRIMARY) 1933-1973  
(ADFT-ALL) 1867-1973

JANUARY

AREA 0007 SARAWAK  
3.7N 111.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG	SNOW	OTHER	HAIR	PCPN AT	PCPN PAST	THDR	FOG	FOG WD	SMOKE	SPRAY
				PCPN	PCPN	FRZN		OB TIME	HOURL	LTNG	WD	PCPN	HAZE	BLNG DUST
						PCPN					PCPN	PAST HR		BLNG SNOW
N	4.3	1.4	1.6	.0	.0	.0	.0	7.2	4.1	.8	.0	.0	.4	.0
NE	2.2	.9	1.0	.0	.0	.0	.0	4.1	3.3	1.6	.0	.0	.0	.0
E	10.4	1.0	1.0	.0	.0	.0	.0	12.4	2.0	2.0	.0	.0	.0	.0
SE	11.9	3.4	.0	.0	.0	.0	.0	15.3	4.2	.8	.0	.0	.0	.0
S	7.8	8.9	4.4	.0	.0	.0	.0	21.1	3.3	3.3	.0	.0	.0	.0
SW	6.8	.0	.0	.0	.0	.0	.0	6.8	1.7	.0	.0	.0	.0	.0
W	8.3	3.1	.0	.0	.0	.0	.0	11.5	3.1	8.3	.0	.0	.0	.0
NW	6.0	.5	.0	.0	.0	.0	.0	6.6	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	22.6	12.9	3.2	.0	.0	.0	.0	38.7	.0	.0	.0	3.2	.0	.0
TOT PCT	4.8	1.7	1.2	.0	.0	.0	.0	7.7	3.2	1.4	.0	.1	.1	.0
TOT OBS	919													

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG	SNOW	OTHER	HAIR	PCPN AT	PCPN PAST	THDR	FOG	FOG WD	SMOKE	SPRAY
				PCPN	PCPN	FRZN		OB TIME	HOURL	LTNG	WD	PCPN	HAZE	BLNG DUST
						PCPN					PCPN	PAST HR		BLNG SNOW
00003	6.2	2.1	1.2	.0	.0	.0	.0	9.5	4.1	.0	.0	.4	.4	.0
06009	3.6	3.6	.4	.0	.0	.0	.0	7.6	3.1	.0	.0	.0	.4	.0
12015	4.2	.8	2.1	.0	.0	.0	.0	7.2	1.7	3.0	.0	.0	.0	.0
18021	6.5	.9	.9	.0	.0	.0	.0	8.3	3.9	2.6	.0	.0	.0	.0
TOT PCT	5.2	1.8	1.2	.0	.0	.0	.0	8.2	3.2	1.4	.0	.1	.2	.0
TOT OBS	932													

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL	PCT	MEAN	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.2	15.0	9.8	2.3	.1	.1		28.5	11.5		25.0	26.3	26.8	36.7	27.3	36.9	24.0	26.7
NE	2.3	22.4	20.8	2.3	.0	.0		47.8	11.5		42.0	46.8	46.5	48.5	49.1	47.6	52.9	49.0
E	1.1	3.9	1.2	.0	.0	.0		6.3	7.4		9.6	6.4	8.7	3.6	2.8	4.4	5.4	8.6
SE	.5	2.3	.1	.0	.0	.0		2.9	5.5		3.2	6.4	2.2	.0	2.2	1.8	2.4	5.7
S	.2	1.8	.3	.0	.0	.0		2.2	7.4		3.2	2.6	3.4	.0	2.5	1.2	2.4	2.2
SW	.3	.8	.3	.0	.0	.0		1.5	7.6		1.9	.9	.0	1.4	3.0	.4	3.2	1.0
W	.4	1.8	.3	.0	.0	.0		2.5	6.8		3.7	3.2	1.8	2.0	3.0	2.4	1.5	2.7
NW	1.0	2.7	1.4	.0	.0	.0		5.1	8.1		3.9	6.6	5.4	6.5	6.5	4.6	4.2	3.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.1							3.1	.0		6.4	.9	5.3	1.4	3.7	.8	4.1	.7
TOT OBS	121	601	404	55	2	1	1184		10.3		171	117	170	147	161	124	148	146
TOT PCT	10.2	50.8	34.1	4.6	.2	.1		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL	PCT	MEAN	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+						00	03	06	12	18
N	4.5	16.3	4.6	1.0	.1			28.5	11.5		25.5	31.4	31.5	25.3	
NE	9.9	28.4	9.1	.4	.0			47.8	11.5		46.5	47.4	48.4	50.9	
E	3.2	2.9	.2	.0	.0			6.3	7.4		8.3	6.3	3.5	7.0	
SE	2.3	.6	.0	.0	.0			2.9	5.5		4.5	1.2	1.9	4.0	
S	.9	1.3	.0	.0	.0			2.2	7.4		3.0	1.8	1.9	2.3	
SW	.5	.6	.0	.0	.0			1.5	7.6		1.5	.6	1.8	2.1	
W	1.4	1.0	.1	.0	.0			2.5	6.8		3.5	1.9	2.7	2.1	
NW	2.3	2.4	.4	.0	.0			5.1	8.1		3.0	5.9	5.7	3.8	
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0	
CALM	3.1							3.1	.0		4.2	3.5	2.5	2.4	
TOT OBS	389	636	172	16	1	1184			10.3		288	315	285	294	
TOT PCT	30.3	53.7	14.5	1.4	.1			100.0			100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1933-1973  
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	4.2	7.3	50.0	33.7	4.5	.3	.0	10.1	100.0	288
0600	3.5	8.2	51.7	31.2	5.0	.3	.0	10.1	100.0	317
1200	2.5	7.0	50.2	35.4	4.6	.0	.4	10.4	100.0	285
1800	2.4	5.8	51.0	36.4	4.4	.0	.0	10.4	100.0	294
TOT	.97	.84	.601	.404	.35	.2	.1	10.3		1184
PCT	3.1	7.1	50.8	34.1	4.6	.2	.1	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL OBS	MEAN CLOUD COVER
N	2.2	4.4	10.8	8.8		5.9
NE	5.3	8.0	25.6	7.9		5.4
E	.4	1.0	7.4	1.4		6.0
SE	.2	.4	1.2	.7		5.6
S	.1	.3	1.9	1.3		6.3
SW	.0	.2	1.1	.4		6.5
W	.2	.4	1.1	1.1		6.3
NW	.2	1.0	2.1	1.5		6.0
VAR	.0	.0	.0	.0		.0
CALM	.2	.6	1.4	3.2		6.9
TOT OBS	45	83	242	136	506	6.8
TOT PCT	8.9	16.4	47.8	26.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.1	.9	2.7	3.8	1.9	1.1	.4	.6	.0	14.7	
.4	.0	.9	3.0	6.8	3.5	.9	.6	.2	.2	30.6	
.2	.0	.7	.7	.8	.3	.3	.0	.0	.0	3.3	
.0	.0	.4	.4	.4	.7	.0	.0	.0	.0	1.1	
.0	.0	.0	.1	.3	.2	.2	.0	.0	.0	2.6	
.0	.0	.4	.4	.4	.0	.0	.2	.0	.0	.7	
.1	.0	.2	.5	.3	.0	.0	.2	.0	.0	1.0	
.0	.0	.6	1.0	.4	.0	.0	.0	.0	.0	2.8	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.6	2.2	.4	.0	.0	.0	.0	.0	2.2	
.4	1	11	46	83	36	14	7	4	0	298	506
.8	.2	2.2	9.1	16.8	7.1	2.8	1.4	.8	.0	58.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.8	.6	.8	.8	.8	.8	.8	.8
>5000	1.7	2.1	2.1	2.1	2.1	2.1	2.1	2.1
>3500	4.0	4.6	4.6	4.6	4.6	4.6	4.6	4.6
>2000	10.8	12.5	12.5	12.7	12.7	12.7	12.7	12.7
>1000	22.7	28.5	29.7	29.9	29.9	29.9	29.9	29.9
>600	27.2	36.6	38.3	38.5	38.7	38.7	38.7	38.7
>300	28.3	38.7	40.7	40.8	41.0	41.0	41.0	41.0
>150	28.5	38.9	40.8	41.0	41.2	41.2	41.2	41.2
>0	29.1	39.7	41.6	41.8	42.0	42.0	42.0	42.0
TOTAL	191	206	216	217	218	218	218	218

TOTAL NUMBER OF OBS: 519

PCT FREQ NH <5/8: 58.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	9	TOTAL OBS
4.1	6.5	14.3	16.8	15.8	11.5	11.4	6.9	12.3	.4	937



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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
	TOT %	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
1/2<1	PCP	.1	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.3
	NO PCP	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2
	TOT %	.1	.0	.1	.1	.0	.1	.1	.0	.0	.0	.0	.5
1<2	PCP	.0	.0	.1	.2	.1	.0	.0	.0	.0	.0	.0	.3
	NO PCP	.2	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.2
	TOT %	.2	.0	.1	.2	.1	.0	.0	.1	.0	.0	.0	.5
2<5	PCP	.3	.4	.1	.1	.0	.0	.1	.1	.0	.0	.0	1.1
	NO PCP	1.0	.2	.2	.0	.0	.0	.1	.3	.0	.0	.0	1.8
	TOT %	1.3	.7	.3	.1	.0	.0	.2	.4	.0	.0	.0	2.9
5<10	PCP	1.0	.8	.2	.1	.4	.1	.1	.1	.0	.2	.0	3.0
	NO PCP	5.7	9.1	.9	.2	.5	.4	.4	.9	.0	.1	.0	18.2
	TOT %	7.7	9.9	1.1	.3	.8	.5	.5	1.1	.0	.3	.0	21.2
10+	PCP	.9	.8	.3	.0	.1	.0	.1	.1	.0	1.1	.0	2.9
	NO PCP	18.2	37.8	3.7	2.5	1.5	1.0	1.7	3.4	.0	2.0	.0	71.7
	TOT %	18.7	38.6	3.9	2.5	1.6	1.0	1.8	3.5	.0	3.0	.0	74.6
TOT OBS													
TOT PCT													
28.0 48.2 5.5 3.2 2.4 1.6 2.6 5.0 .0 3.4 100.0													

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TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.1	.0	.1	.1	.0	.1	.1	.0	.0	.0	.0	.5
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.0	.1	.1	.0	.1	.1	.0	.0	.0	.0	.5
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.1	.0	.1	.2	.1	.0	.0	.0	.0	.0	.0	.4
	11-21	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.2	.0	.1	.2	.1	.0	.0	.1	.0	.0	.0	.5
2<5	0-3	.1	.2	.1	.0	.0	.0	.0	.2	.0	.0	.0	.5
	4-10	1.3	.7	.1	.1	.1	.0	.2	.2	.0	.0	.0	2.9
	11-21	.5	.8	.1	.0	.0	.0	.0	.2	.0	.0	.0	1.5
	22+	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3
	TOT %	2.2	1.7	.3	.1	.1	.0	.2	.6	.0	.0	.0	5.2
5<10	0-3	.1	.3	.2	.0	.0	.1	.0	.2	.0	.3	.0	1.2
	4-10	2.4	2.1	.9	.3	.5	.3	.3	.5	.0	.0	.0	8.1
	11-21	3.3	4.4	.2	.0	.3	.1	.3	.3	.0	.0	.0	8.9
	22+	1.6	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1
	TOT %	7.4	8.3	1.3	.3	.8	.5	.5	1.0	.0	.3	.0	20.4
10+	0-3	.8	1.1	.3	.5	.3	.2	.3	.5	.0	2.9	.0	6.3
	4-10	10.3	18.2	2.7	1.8	1.3	.3	1.4	1.9	.0	.0	.0	38.4
	11-21	6.2	16.6	.8	.1	.0	.2	.0	.9	.0	.0	.0	24.9
	22+	.8	2.3	.1	.0	.0	.0	.0	.0	.0	.3	.0	3.2
	TOT %	18.4	38.2	3.9	2.4	1.6	.9	1.7	3.3	.0	2.9	.0	73.3
TOT OBS													
TOT PCT													
28.2 48.3 5.7 3.1 2.5 1.5 2.4 5.0 .0 3.2 100.0													

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PERIOD: (PRIMARY) 1939-1973  
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET/MH >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.7	.7	3.3	9.2	20.6	10.6	1.4	3.5	.7	.0	51.1	48.9	141														
06009	.0	.0	2.3	10.2	15.6	8.6	3.1	.8	.8	.0	41.4	58.6	128														
12015	.7	.0	1.5	9.5	11.7	7.3	3.6	.0	1.5	.0	35.8	64.2	137														
18021	1.7	.0	1.7	5.8	19.8	4.1	2.5	.8	.0	.0	36.4	63.6	171														
TOT	4	1	12	46	89	41	14	/	4	0	218	309	527														
PCT	.8	.2	2.3	8.7	16.9	7.8	2.7	1.3	.8	.0	41.4	58.6	100.0														

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.4	.4	.4	4.7	20.1	74.0	254
06009	.0	.8	.4	4.1	16.3	78.4	245
12015	.0	.0	.0	6.0	21.4	72.6	252
18021	.0	.8	1.2	5.7	23.4	68.9	244
TOT	1	5	9	51	202	731	995
PCT	.1	.5	.9	5.1	20.3	73.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET/MH >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.7	5.7	16.4	36.4	47.1	140
06009	.0	4.0	14.3	29.4	56.3	126
12015	.7	2.2	12.7	24.6	62.7	134
18021	1.7	3.4	14.3	22.7	63.0	119
TOT	4	70	75	148	296	519
PCT	.8	3.9	14.3	28.5	57.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.4	2.7	.9	.2	19	4.2
80/84	.0	.0	.0	.0	1.6	15.8	34.6	6.7	253	58.7
75/79	.0	.0	.0	.0	.7	3.8	16.5	13.6	155	34.6
70/74	.0	.0	.0	.0	.0	.2	1.1	1.1	11	2.5
TOTAL	0	0	0	0	12	101	238	97	448	100.0
PCT	.0	.0	.0	.0	2.7	22.5	53.1	21.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.4	2.8	.8	.2	.0	.0	.0	.0	.0	.0
80/84	12.9	35.9	2.3	1.5	1.6	.9	.9	1.3	.0	1.3
75/79	10.0	11.9	2.1	.9	1.4	1.0	1.6	2.3	.0	3.3
70/74	.4	.4	.0	.0	.0	.0	.0	.2	.0	1.3
TOTAL	23.8	51.1	5.1	2.7	3.0	1.9	2.5	3.9	.0	6.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	86	85	83	80	75	73	72	79.8	274
06009	91	89	86	81	77	75	72	81.2	312
12015	86	84	83	81	77	75	73	80.1	287
18021	86	83	82	80	75	73	72	79.4	296
TOT	91	86	84	81	75	73	72	80.2	1169

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	.0	.0	12.9	58.6	28.4	86	116
06009	.0	.0	.0	.0	.0	7.4	38.1	41.7	81	108
12015	.0	.0	.0	.0	.0	2.4	20.2	53.2	84	124
18021	.0	.0	.0	.0	.0	.9	15.6	56.3	85	112
TOT	0	0	0	0	0	17	101	242	346	460

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	TOT	% FOG	% FOG
9/10	.0	.0	.0	.0	.1	.0	1	.0	.1
7/8	.0	.1	.1	.1	.1	.0	4	.0	.5
6	.0	.0	.0	.0	.2	.1	3	.0	.3
5	.0	.0	.0	.3	.6	.0	8	.0	.9
4	.0	.0	.3	2.5	.6	.0	30	.0	3.4
3	.0	.0	.7	.7	.2	.0	14	.0	1.6
2	.0	.0	.8	7.3	.3	.0	74	.0	8.4
1	.0	.2	.9	2.9	.3	.0	38	.0	4.3
0	.0	.7	7.3	17.9	.3	.0	230	.0	26.2
-1	.1	.6	4.0	4.4	.0	.0	80	.0	9.1
-2	.0	.7	13.7	10.8	.0	.0	221	.0	25.2
-3	.1	.6	2.7	.9	.0	.0	38	.0	4.3
-4	.0	.9	3.5	2.2	.0	.0	75	.0	8.6
-5	.2	1.3	1.9	.3	.0	.0	33	.0	3.9
-6	.0	1.0	.5	.1	.0	.0	14	.0	1.6
-7/-8	.0	.7	.3	.2	.0	.0	11	.0	1.3
-9/-10	.1	.1	.1	.0	.0	.0	3	.0	.3
TOTAL	5		341	25			877	0	877
PCT	.6	60	445	2.9	1		100.0	100.0	

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.5	1.6	.0	.0	.0	.0	2.1	1.1	.0	.5	.0	.0	.0	1.6
1-2	.8	3.3	1.6	.0	.0	.0	5.7	1.2	9.0	2.0	.0	.0	.0	12.8
3-4	.0	6.1	5.3	.0	.0	.0	11.4	1.1	5.0	10.1	.0	.0	.0	16.1
5-6	.0	.0	3.4	1.1	.0	.0	4.5	.0	1.6	7.8	1.6	.0	.0	11.0
7	.0	.0	2.6	.0	.0	.0	2.6	.0	.5	1.6	.5	.0	.0	2.6
8-9	.0	.0	.4	.5	.0	.0	.9	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.9	.0	.0	.0	.9	.0	.0	1.2	.5	.0	.0	1.7
12	.0	.0	.0	.4	.0	.0	.4	.0	.3	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.4	.0	.0	.4	.0	.0	.0	.1	.0	.0	.1
20-22	.0	.0	.0	.4	.0	.5	.9	.0	.0	.5	.1	.0	.0	.7
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	11.0	14.3	2.8	.0	.5	29.9	3.3	16.1	24.5	3.0	.0	.0	47.0

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.5	.0	.0	.0	.0	.5	.0	.7	.0	.0	.0	.0	.7
1-2	.5	.8	.5	.0	.0	.0	1.9	.0	.8	.0	.0	.0	.0	.8
3-4	.0	.4	1.6	.0	.0	.0	2.0	.0	1.1	.5	.0	.0	.0	1.6
5-6	.0	.5	.4	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.5	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	2.2	3.0	.0	.0	.0	5.8	.0	2.5	.5	.0	.0	.0	3.0

PERIOD: (OVER-ALL) 1963-1973

JANUARY

AREA 0007 SARAWAK  
3.7N 111.8E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.4	.0	.0	.0	.0	.4	.5	.0	.0	.0	.0	.0	.5	
1-2	.0	1.2	.5	.0	.0	.0	1.7	.0	.4	.5	.0	.0	.0	.9	
3-4	.0	.5	.0	.0	.0	.0	.5	.5	1.1	.5	.0	.0	.0	2.1	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	2.1	.5	.0	.0	.0	2.6	1.1	1.5	1.1	.0	.0	.0	3.6	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.5	.0	.0	.0	.0	.5	1.1	.0	.0	.0	.0	.0	1.1	
1-2	.0	.8	.0	.0	.0	.0	.8	.1	1.2	.0	.0	.0	.0	1.3	
3-4	.0	.5	.0	.0	.0	.0	.5	.0	.1	.0	.0	.0	.0	.1	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	.0	1.1	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	1.9	.0	.0	.0	.0	1.9	1.2	1.3	1.1	.0	.0	.0	3.6	97.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.3	3.7	.5	.0	.0	.0	10.5	
1-2	2.6	17.3	5.8	.0	.0	.0	25.7	
3-4	2.1	14.7	17.8	.0	.0	.0	34.6	
5-6	.0	2.1	12.6	2.6	.0	.0	17.3	
7	.0	.5	4.2	.5	.0	.0	5.2	
8-9	.0	.0	.5	.5	.0	.0	1.0	
10-11	.0	.0	2.1	.5	.0	.0	2.6	
12	.0	.0	.0	.5	.0	.0	.5	
13-16	.0	.0	.5	.0	.0	.0	.5	
17-19	.0	.0	.0	.5	.0	.0	.5	
20-22	.0	.0	.5	.5	.0	.5	1.6	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	11.0	38.2	44.5	5.8	.0	.5	100.0	191

PERIOD: (OVER-ALL) 1969-1973

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.6	12.3	14.9	7.7	3.3	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	165
6-7	.3	2.1	7.4	10.5	9.0	1.3	3.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	139
8-9	.0	.0	1.0	2.8	4.1	2.3	2.1	.0	.3	.3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	52
10-11	.0	.0	.3	.0	.3	.3	.8	.9	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9
12-13	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	21
INDEX	2.3	2.6	1.3	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	27
TOTAL	24	66	97	85	66	15	27	2	2	3	3	0	0	0	0	0	0	0	0	0	390
PCT	6.2	16.9	24.9	21.8	16.9	3.8	6.9	.5	.5	.8	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

## FEBRUARY

PERIOD: (PRIMARY) 1933-1973  
(OVER-ALL) 1907-1973AREA 0007 SARANAK  
3.7N 111.7E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	MAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	4.2	1.0	1.4	.0	.0	.0	.0	6.2	3.7	.0	1.3	.0	1.0	1.5	86.3
NE	3.2	.9	.8	.0	.0	.0	.0	4.8	1.8	.7	.1	.0	.2	.0	92.4
E	.0	.0	3.2	.0	.0	.0	.0	3.2	1.9	.0	.0	.0	.0	.0	94.9
SE	1.6	6.3	3.1	.0	.0	.0	.0	10.9	.0	6.3	.0	.0	.0	.0	82.8
S	17.9	.0	10.3	.0	.0	.0	.0	28.2	17.9	.0	.0	.0	.0	.0	53.8
SW	.0	.0	.0	.0	.0	.0	.0	.0	2.5	.0	.0	.0	.0	.0	97.3
W	22.7	.0	.0	.0	.0	.0	.0	22.7	.0	.0	.0	.0	.0	.0	77.3
NW	6.5	5.4	.0	.0	.0	.0	.0	12.0	.0	.0	.0	.0	.0	.0	88.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.1	.0	9.4	.0	.0	.0	.0	12.5	.0	.0	.0	.0	3.1	.0	84.4
TOT PCT	3.7	1.0	1.5	.0	.0	.0	.0	6.2	2.3	.5	.4	.0	.5	.4	89.7
TOT OBS:	775														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	MAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	7.5	1.0	3.0	.0	.0	.0	.0	10.9	4.0	.5	.5	.0	1.0	.0	83.1
05009	1.5	1.0	1.5	.0	.0	.0	.0	4.1	2.6	.0	.5	.0	.5	.0	91.8
12015	2.9	.5	2.4	.0	.0	.0	.0	5.8	1.0	.5	.0	.0	.0	.0	92.7
18021	3.1	1.5	2.6	.0	.0	.0	.0	7.2	1.5	1.0	1.0	.0	.5	1.0	87.6
TOT PCT	3.8	1.0	2.4	.0	.0	.0	.0	7.0	2.3	.5	.5	.0	.5	.4	88.8
TOT OBS:	796														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.8	12.9	9.5	.6	.0	.0		24.9	10.3		19.8	21.2	26.4	28.8	28.2	30.3	23.4	22.0
NE	2.6	25.6	26.7	1.5	.0	.0		56.4	11.1		54.4	37.7	37.1	38.1	33.8	35.3	38.6	36.9
E	.9	3.3	.9	.0	.0	.0		5.1	7.5		6.4	7.9	5.8	2.7	4.5	3.0	3.8	7.1
SE	.4	1.5	.1	.0	.0	.0		2.0	5.9		3.9	3.6	.4	.0	1.4	3.0	.7	3.2
S	.1	.9	.1	.0	.0	.0		1.2	6.8		3.0	1.5	2.2	.4	1.0	.0	.0	.8
SW	.2	.7	.1	.0	.0	.0		1.0	3.5		.5	1.5	.7	1.9	.2	.0	1.3	2.0
W	.4	.7	.0	.0	.0	.0		1.1	4.9		2.5	.5	.7	1.3	1.3	.5	.5	1.2
NW	1.0	2.3	.3	.0	.0	.0		3.6	5.7		1.9	2.0	2.4	3.3	3.3	5.8	3.5	2.8
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.7							4.7	.0		7.5	4.1	4.3	1.5	4.5	2.0	8.0	4.0
TOT OBS	127	500	393	22	0	0	1044		9.7		159	98	138	132	137	99	137	124
TOT PCT	12.2	47.9	37.8	2.1	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+						00	03	06	12	18
N	6.8	14.4	3.7	.0	.0			24.9	10.3		20.3	27.6	29.0	22.7	
NE	12.4	35.3	8.1	.0	.0			56.4	11.1		55.6	37.6	34.4	37.8	
E	2.5	2.4	.2	.0	.0			5.1	7.5		7.0	4.3	3.9	5.4	
SE	1.2	.8	.0	.0	.0			2.0	5.9		3.8	.2	2.1	1.9	
S	.4	.6	.0	.0	.0			1.2	6.8		1.4	1.3	.6	.4	
SW	.8	.2	.0	.0	.0			1.0	3.5		.9	1.3	.1	1.7	
W	.9	.3	.0	.0	.0			1.1	4.9		1.8	1.0	1.0	.9	
NW	2.4	1.1	.0	.0	.0			3.6	5.7		1.9	3.8	3.5	3.2	
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0	
CALM	4.7							4.7	.0		6.2	3.0	3.5	6.1	
TOT OBS	336	579	125	4	0	1044			9.7		257	270	256	261	
TOT PCT	32.2	55.5	12.0	.4	.0			100.0			100.0	100.0	100.0	100.0	

## FEBRUARY

PERIOD: (PRIMARY) 1933-1973  
(OVER-ALL) 1907-1973AREA 0007 SARAWAK  
3.7N 111.7E

TABLE 4

## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	6.2	6.6	48.6	36.6	1.9	.0	.0	.0	9.6	100.0	257
06009	3.0	7.8	48.9	39.3	1.1	.0	.0	.0	9.9	100.0	270
12015	3.3	7.8	46.1	39.5	3.1	.0	.0	.0	9.9	100.0	256
18021	6.1	7.7	47.9	36.0	2.3	.0	.0	.0	9.5	100.0	261
TOT	4.9	7.8	50.0	39.5	2.2	.0	.0	.0	9.7		1044
PCT	4.7	7.5	47.9	37.8	2.1	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.6	4.4	10.1	7.3		5.6
NE	6.5	11.6	25.4	14.1		5.5
E	.5	.7	2.9	.4		5.5
SE	.0	.3	1.3	.4		6.5
S	.0	.0	.9	.8		7.2
SW	.3	.3	.1	.0		2.4
W	.0	.0	.0	.5		8.0
NW	.4	.0	.6	.6		5.5
VAR	.0	.0	.0	.0		.0
CALM	1.5	.8	2.0	1.8		5.1
TOT OBS	51	72	173	104	400	5.6
TOT PCT	12.8	18.0	43.3	26.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	2.6	3.6	1.8	1.3	.0	.0	.0	16.2	
.5	.3	1.5	3.1	9.7	5.5	.9	.0	.0	.0	36.3	
.0	.0	.0	.2	.3	.4	.3	.0	.0	.0	3.4	
.0	.0	.0	.6	.3	.8	.0	.0	.0	.0	.4	
.0	.0	.4	.4	.3	.2	.0	.0	.0	.0	.5	
.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.1	.3	.0	.0	.0	.0	.0	.8	
.0	.0	.0	.1	.4	.3	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	1.0	1.0	.3	.3	.0	.0	.0	3.8	
.2	.1	.9	3.2	6.5	3.7	1.0	.0	.0	.0	24.6	400
.5	.3	2.3	8.0	15.8	9.3	2.5	.0	.0	.0	61.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)							
	>10	>5	>2	>1	>1/2	>1/4	>30YD	>0
>8500	.5	.5	.5	.5	.5	.5	.5	.5
>5000	.5	.5	.5	.5	.5	.5	.5	.5
>3500	1.7	2.4	2.9	2.9	2.9	2.9	2.9	2.9
>2000	7.0	10.6	12.0	12.0	12.0	12.0	12.0	12.0
>1000	18.8	25.7	28.6	28.6	28.6	28.6	28.6	28.6
>600	24.8	33.2	36.5	36.5	36.5	36.8	36.8	36.8
>300	26.0	35.1	39.2	39.2	39.2	39.4	39.4	39.4
>150	26.2	35.3	39.4	39.4	39.4	39.7	39.7	39.7
>0	26.4	35.5	39.9	39.9	39.9	40.1	40.1	40.1
TOTAL	110	149	166	166	166	167	167	167

TOTAL NUMBER OF OBS: 416

PCT FREQ NH &lt;5/8: 59.9

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
9.2	7.3	16.8	15.6	14.5	9.3	12.7	7.0	11.3	441

PERIOD: (PRIMARY) 1933-1973  
(OVER-ALL) 1907-1973

FEBRUARY

AREA 0007 SARAWAK  
3.7N 111.7E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3	
1/2<1	PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.3	
1<2	PCP	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.1	.0	.1	.1	.0	.0	.0	.0	.0	.0	.3	
2<5	PCP	.4	.8	.0	.0	.0	.0	.1	.0	.0	.0	1.3	
	NO PCP	.4	1.8	.2	.0	.0	.1	.1	.3	.0	.1	3.0	
	TOT %	.8	2.5	.2	.0	.0	.1	.2	.3	.0	.1	4.3	
5<10	PCP	.5	.9	.0	.1	.0	.0	.2	.2	.0	.0	1.9	
	NO PCP	3.6	10.9	.9	.6	.3	.2	.1	.5	.0	.5	19.6	
	TOT %	6.1	11.5	.9	.8	.3	.2	.3	.7	.0	.5	21.5	
10+	PCP	.6	.8	.1	.1	.4	.0	.0	.2	.0	.5	2.6	
	NO PCP	17.9	41.0	3.8	1.2	.6	1.0	.9	1.8	.0	3.0	70.8	
	TOT %	18.1	41.8	3.9	1.2	1.0	1.0	.9	2.0	.0	3.5	73.4	
TOT OBS													771
TOT PCT													25.3 56.5 5.0 2.1 1.3 1.9 1.4 3.0 .0 4.2 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.6	.0	.0	.0	.0	.0	.0	.0	.0	.8	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	
	11-21	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.3	.1	.2	.0	.0	.0	.0	.0	.0	.6	
	11-21	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.4	.1	.2	.0	.0	.0	.0	.0	.0	.8	
2<5	0-3	.1	.3	.1	.0	.0	.1	.1	.1	.0	.1	.9	
	4-10	.6	1.4	.0	.0	.0	.3	.1	.4	.0	.0	2.5	
	11-21	.8	1.8	.1	.0	.0	.0	.0	.0	.0	.0	2.7	
	22+	.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.5	
	TOT %	1.6	3.8	.2	.0	.0	.1	.2	.5	.0	.1	6.6	
5<10	0-3	.2	.5	.3	.2	.1	.0	.1	.1	.0	.5	2.0	
	4-10	2.1	4.9	.4	.4	.1	.2	.2	.3	.0	.0	8.5	
	11-21	2.9	4.8	.2	.1	.0	.0	.0	.2	.0	.0	8.2	
	22+	.2	.6	.0	.0	.0	.0	.0	.0	.0	.0	.8	
	TOT %	5.5	10.7	.8	.7	.2	.2	.2	.6	.0	.5	19.6	
10+	0-3	1.3	1.9	.6	.2	.1	.1	.2	.3	.0	3.8	8.5	
	4-10	10.3	18.9	2.4	.9	.7	.7	.6	1.6	.0	.0	34.2	
	11-21	6.2	21.1	.4	.1	.2	.1	.1	.1	.0	.0	28.2	
	22+	.4	.8	.0	.0	.0	.0	.0	.0	.0	.0	1.2	
	TOT %	18.2	40.6	3.5	1.2	1.0	.9	.9	2.0	.0	3.8	72.0	
TOT OBS													849
TOT PCT													25.7 56.5 4.6 2.1 1.2 1.2 1.3 3.1 .0 4.4 100.0

## FEBRUARY

PERIOD: (PRIMARY) 1933-1973  
(OVER-ALL) 1907-1973AREA 0007 SARAWAK  
3.7N 111.7E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.9	.0	4.4	9.7	23.0	9.7	.9	.0	.0	.0	48.7	51.3	113
06009	.0	.9	2.7	9.9	17.1	8.1	3.6	.0	.0	.0	42.3	57.7	111
12015	.0	.0	.9	5.5	11.9	13.8	1.8	.0	.0	1.8	35.8	64.2	109
18021	1.0	.0	2.1	6.2	11.3	4.1	3.1	.0	.0	.0	27.8	72.2	97
TOT	2	1	11	34	69	39	10	0	0	2	168	262	430
PCT	.5	.2	2.6	7.9	16.0	9.1	2.3	.0	.0	.5	39.1	60.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2-1	1-2	2-5	5-10	10+	TOTAL OBS
00003	.5	.0	.9	6.4	18.3	73.9	218
06009	1.4	.5	.9	5.6	14.0	77.6	214
12015	.5	.5	1.4	6.3	19.8	71.6	222
18021	.9	.0	.0	7.9	23.0	68.2	216
TOT	7	2	7	57	168	629	870
PCT	.8	.2	.8	6.6	19.3	72.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.9	5.4	17.1	31.5	51.4	111
06009	.0	4.6	16.7	26.9	56.5	108
12015	.0	1.0	9.7	28.2	62.1	109
18021	1.1	3.2	16.0	14.9	69.1	94
TOT	2	13	62	107	247	416
PCT	.5	3.6	14.9	23.7	59.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.8	1.7	.0	.0	9	2.5
80/84	.0	.0	.3	.0	.6	14.1	30.9	7.0	208	58.4
75/79	.0	.0	.0	.0	.6	3.7	18.5	15.4	136	38.2
70/74	.0	.0	.0	.0	.0	.0	.0	.8	3	.8
TOTAL	0	0	1	0	7	87	176	85	356	100.0
PCT	.0	.0	.3	.0	2.0	24.4	49.4	23.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.2	2.0	.0	.0	.0	.0	.3	.1	.0	.0
14.9	36.3	3.0	.0	.8	.4	.5	.9	.0	1.7
7.0	18.3	2.2	2.0	1.1	.4	.6	1.3	.0	5.3
.3	.1	.2	.0	.0	.0	.0	.0	.0	.3
22.3	58.7	5.5	2.0	1.9	.7	1.3	2.3	.0	7.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	88	84	81	76	73	72	80.1	257
06009	87	86	85	81	77	73	73	81.1	270
12015	84	83	82	80	77	73	72	80.0	258
18021	82	81	81	79	75	73	72	79.1	269
TOT	90	86	84	81	76	73	72	80.1	1054

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	2.2	16.5	44.0	37.4	86	91
06009	.0	1.1	3.6	23.6	42.5	17.2	81	87
12015	.0	.0	2.0	29.3	49.5	19.2	84	99
18021	.0	.0	1.0	14.3	54.1	30.6	86	98
TOT	0	1	8	89	179	98	84	375



## FEBRUARY

PERIOD: (PRIMARY) 1933-1973  
(OVER-ALL) 1907-1973

TABLE 17

AREA 0007 SARAWAK  
3.7N 111.7EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.1	.0	.0	1	.0	.1
9/10	.0	.0	.4	.1	.0	.0	4	.0	.5
7/8	.0	.0	.3	.0	.1	.0	3	.0	.4
6	.0	.0	.0	.1	.0	.0	1	.0	.1
5	.0	.0	.0	.4	.4	.0	6	.0	.8
4	.0	.0	.3	3.8	1.1	.0	38	.0	5.2
3	.0	.0	.0	1.0	.3	.0	9	.0	1.2
2	.0	.3	1.1	9.3	.3	.1	81	.0	11.1
1	.0	.0	1.3	3.7	.1	.0	39	.0	5.3
0	.0	1.5	9.0	18.4	.0	.0	212	.1	28.8
-1	.0	.3	6.8	3.8	.1	.0	79	.0	10.8
-2	.0	1.9	10.1	6.1	.0	.0	133	.0	18.2
-3	.0	.4	3.0	1.4	.0	.0	25	.0	4.8
-4	.0	1.8	4.9	1.0	.0	.0	26	.0	7.7
-5	.1	.3	1.5	.1	.0	.0	15	.0	2.0
-6	.1	.4	.8	.1	.0	.0	11	.0	1.5
-7/-8	.1	.8	.0	.1	.0	.0	8	.1	1.0
-9/-10	.1	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	4	56	293	380	18	1	732	2	720
PCT	.5	7.7	40.0	69.2	2.5	.1	100.0	.3	99.7

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	2.5	.0	.0	.0	.0	2.5	.5	1.2	.0	.0	.0	.0	1.7
1-2	.5	2.9	1.3	.0	.0	.0	4.8	1.1	6.3	2.4	.0	.0	.0	9.7
3-4	.0	7.3	5.3	.4	.0	.0	13.0	.5	4.9	14.2	.7	.0	.0	20.3
5-6	.0	.5	3.5	.3	.0	.0	4.5	.0	.5	8.2	1.6	.0	.0	10.4
7	.0	.0	.0	.0	.0	.0	.0	.0	1.6	6.9	3.2	.0	.0	11.7
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.5	.0	.0	.5
10-11	.0	.0	.0	1.1	.0	.0	1.1	.0	.5	2.1	.5	.0	.0	3.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-88	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	13.3	10.1	2.0	.0	.0	25.9	2.1	15.0	34.6	6.0	.0	.0	57.7

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	1.1	.0	.0	.0	.0	.0	1.1	.0	.5	.0	.0	.0	.0	.5
1-2	.0	1.3	.0	.0	.0	.0	1.3	.0	.5	.0	.0	.0	.0	.5
3-4	1.1	.5	.0	.0	.0	.0	1.6	.0	1.1	.0	.0	.0	.0	1.1
5-6	.0	.0	.5	.0	.0	.0	.5	.0	.5	.0	.0	.0	.0	.5
7	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.4	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-88	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.1	1.9	.9	.0	.0	.0	4.9	.0	2.3	.0	.0	.0	.0	2.3

PERIOD: (OVER-ALL) 1963-1973

FEBRUARY

AREA 0007 SARAWAK  
3.7N 111.7E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.4	.0	.0	.0	.4	.0	.0	.1	.0	.0	.0	.1	.0
3-4	.0	.4	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.4	.4	.0	.0	.0	.8	.0	.0	.1	.0	.0	.0	.1	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.5	.0	.0	.0	.0	.5	.0	.5	.0	.0	.0	.0	.5	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.7	.5	.0	.0	.0	1.2	.0
3-4	.0	.5	.0	.0	.0	.0	.5	.0	.0	.1	.0	.0	.0	.1	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.1	.0	.0	.0	.0	1.1	.0	1.2	.7	.0	.0	.0	1.9	94.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	7.8	5.2	.0	.0	.0	.0	13.0	
1-2	2.0	11.5	4.7	.0	.0	.0	18.8	
3-4	1.6	13.5	19.3	1.0	.0	.0	35.4	
5-6	.0	1.6	12.0	2.1	.0	.0	15.6	
7	.0	2.1	6.8	3.1	.0	.0	12.0	
8-9	.0	.0	.5	.0	.0	.0	.5	
10-11	.0	.5	2.1	1.6	.0	.0	4.2	
12	.0	.0	.5	.0	.0	.0	.5	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	12.0	34.4	45.8	7.8	.0	.0	100.0	192

PERIOD: (OVER-ALL) 1949-1973

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.3	11.9	18.8	5.9	1.6	.9	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	133	3
6-7	.3	2.2	10.6	11.6	5.8	2.8	2.2	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	115	5
8-9	.0	.6	1.3	3.4	5.3	2.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	43	6
10-11	.0	.3	.6	.6	.3	1.3	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14	7
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	6
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0
INDEX	3.1	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12	0
TOTAL	15	50	101	69	43	24	15	3	0	0	0	0	0	0	0	0	0	0	0	320	4
PCT	4.7	15.6	31.6	21.6	13.4	7.3	4.7	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1931-1973  
(OVER-ALL) 1870-1973

MARCH

AREA 0007 SARAWAK  
3.7N 111.7E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRIG PCPN	SNOW	OTHER PRZM PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	3.5	2.0	1.5	.0	.0	.0	.0	7.0	3.0	3.0	.0	.0	1.9	.0	85.7
NE	2.2	.4	1.0	.0	.0	.0	.0	2.9	1.0	2.2	.3	.0	.4	.0	92.8
E	4.1	.0	.0	.0	.0	.0	.0	4.1	4.5	1.6	.0	.0	.0	.0	89.8
SE	12.5	.0	4.5	.0	.0	.0	.0	17.0	4.5	.0	.0	.0	.0	.0	78.4
S	15.1	5.5	.0	.0	.0	.0	.0	20.5	5.5	5.5	.0	.0	.0	.0	68.5
SW	15.0	5.0	.0	.0	.0	.0	.0	20.0	1.5	.0	.0	.0	.0	.0	78.8
W	27.9	.0	9.3	.0	.0	.0	.0	37.2	7.0	.0	.0	.0	.0	.0	55.8
NW	.0	.0	.0	.0	.0	.0	.0	.0	1.2	7.9	.0	.0	6.1	4.9	80.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	3.4	.0	.0	.0	.0	3.4	.0	1.7	5.2	.0	.0	.0	89.7
TOT PCT	3.9	.9	1.4	.0	.0	.0	.0	6.1	2.0	2.4	.6	.0	.8	.2	88.1
TOT OBS:	636														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRIG PCPN	SNOW	OTHER PRZM PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	5.5	.6	2.5	.0	.0	.0	.0	8.6	3.7	.6	1.8	.0	.6	.0	85.3
06009	4.8	1.2	.6	.0	.0	.0	.0	6.0	3.0	.0	.0	.0	.6	.0	90.5
12015	1.8	.6	1.8	.0	.0	.0	.0	4.2	1.2	3.8	.0	.0	1.2	.0	89.9
18021	3.7	1.2	1.2	.0	.0	.0	.0	6.2	.6	5.0	.6	.0	.6	.0	86.3
TOT PCT	3.9	.9	1.5	.0	.0	.0	.0	6.2	2.1	2.3	.6	.0	.8	.2	88.0
TOT OBS:	660														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)					
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21
N	2.2	13.7	4.7	.1	.0	.0		20.7	8.1	17.5	16.1	15.7	30.7	24.0	25.9	21.1	19.2
NE	2.5	31.6	14.0	.3	.1	.0		48.6	9.3	49.5	48.8	45.7	49.7	46.0	53.1	49.8	51.2
E	1.8	6.3	.8	.0	.1	.0		9.0	6.4	11.8	14.1	12.5	3.6	7.6	8.5	5.5	7.6
SE	.9	2.1	.1	.0	.0	.0		3.2	5.2	3.0	11.3	3.5	2.1	.8	2.7	1.6	4.7
S	.3	1.9	.1	.0	.0	.0		2.4	6.1	3.4	3.2	3.4	.0	1.8	2.7	1.4	2.9
SW	.6	1.7	.7	.0	.0	.0		3.0	7.6	3.9	.0	5.7	3.0	2.3	2.7	.4	3.8
W	.4	1.0	.1	.0	.0	.0		1.4	6.3	1.1	1.6	.9	2.4	2.9	.0	1.0	.9
NW	1.0	2.0	.2	.0	.0	.0		3.3	5.5	.5	3.2	1.4	6.3	4.5	2.7	6.7	1.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	8.3							8.4	.0	9.3	1.6	11.1	2.4	10.1	1.8	12.6	8.1
TOT OBS	157	524	180	3	2	0	866		7.6	140	82	162	84	149	56	127	86
TOT PCT	18.1	60.9	20.8	.3	.2	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+						00	03	06	12	18
N	8.2	12.0	.5	.0	.0			20.7	8.1	17.1	20.8	24.5	20.3		
NE	13.7	31.7	2.9	.3	.0			48.6	9.3	49.3	47.1	47.9	50.4		
E	5.5	3.4	.1	.1	.0			9.0	6.4	12.5	9.5	7.8	6.3		
SE	2.4	.7	.1	.0	.0			3.2	5.2	5.6	3.0	1.3	2.8		
S	1.6	.8	.0	.0	.0			2.4	6.1	3.3	2.2	2.1	2.0		
SW	1.8	.8	.4	.0	.0			3.0	7.6	2.7	4.8	2.4	1.8		
W	1.0	.3	.1	.0	.0			1.4	6.3	1.2	1.4	2.1	.9		
NW	2.3	1.0	.0	.0	.0			3.3	5.5	1.4	3.0	4.0	4.7		
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0		
CALM	8.4							8.4	.0	6.9	8.1	7.8	10.8		
TOT OBS	388	440	35	3	0	866			7.6	202	246	205	213		
TOT PCT	44.8	50.8	4.0	.3	.0	100.0				100.0	100.0	100.0	100.0		

AREA 0007 SARAWAK  
3.7N 111.7E

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT.)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	6.4	11.9	59.4	21.3	.0	.5	.0	7.5	100.0	202
0000	8.1	10.6	60.6	20.3	.4	.0	.0	7.5	100.0	246
1200	7.8	7.8	60.5	23.4	.5	.0	.0	7.5	100.0	200
1800	10.8	8.9	61.0	19.3	.5	.5	.0	7.5	100.0	213
TOT	73	85	523	180	3	2	0	7.6		866
PCT	8.4	9.8	60.8	20.8	.3	.2	0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH  $\geq 4/8$ )  
AND OCCURRENCE OF NH  $\leq 5/8$  BY WIND DIRECTION

BY WIND DIRECTION						BY DEGREE OF WIND DIRECTION										TOTAL	
WIND DIR	0-2	3-4	5-7	8 & OBSCD	MEAN CLOUD COVER	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <3/8 ANY HGT	TOTAL OBS
						149	299	599	999	1999	3499	4999	6499	7999			
N	2.2	4.0	8.1	5.3	5.4	.0	.0	.2	3.3	3.4	.6	.5	.0	.0	.0	12.3	
NE	7.3	10.4	20.0	4.4	4.9	.0	.0	.0	3.0	4.1	3.3	1.2	.7	.0	.0	30.4	
E	1.0	2.4	5.1	2.2	5.7	.0	.0	.4	.4	1.7	1.7	.2	.0	.0	.0	6.2	
SE	.4	.4	.8	1.1	6.2	.0	.0	.1	.5	.5	.5	.0	.0	.0	.0	1.1	
S	.4	.2	1.0	1.8	6.4	.0	.0	.0	.0	1.2	.7	.2	.0	.0	.0	1.3	
SW	.4	.2	1.3	1.3	6.3	.1	.0	.0	.8	.5	1.0	.0	.0	.0	.0	1.0	
W	.2	.2	.8	.4	5.8	.2	.0	.0	.6	.2	.0	.0	.0	.0	.0	.6	
NW	.8	.5	1.3	.4	4.5	.0	.0	.0	.1	.8	.0	.0	.0	.0	.0	2.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	2.4	1.5	5.3	2.7	5.1	.0	.0	.0	1.0	1.0	1.9	.7	.0	.0	.0	7.3	
TOT OBS	62	85	184	81	412	1	0	3	40	55	40	12	3	0	0	258	
TOT DCT	15.0	20.6	44.7	19.7	100.0	.2	.0	.7	9.7	13.3	9.7	2.9	.7	.0	.0	62.6	412

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM 34/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	≥ OR ≥10	≥ OR ≥5	≥ OR ≥2	≥ OR ≥1	≥ OR ≥1/2	≥ OR ≥1/4	≥ OR ≥0.05	≥ OR ≥0
≥ OR ≥6500	.0	.0	.0	.0	.0	.0	.0	.0
≥ OR ≥5000	.2	.7	.7	.7	.7	.7	.7	.7
≥ OR ≥3500	3.1	3.5	3.5	3.5	3.5	3.5	3.5	3.5
≥ OR ≥2000	11.5	13.6	13.6	13.9	13.9	13.9	13.9	13.9
≥ OR ≥1000	21.6	27.5	27.8	28.0	28.0	28.0	28.0	28.0
≥ OR ≥600	27.5	35.8	36.7	37.4	37.4	37.4	37.4	37.4
≥ OR ≥300	28.2	36.5	37.4	38.1	38.1	38.1	38.1	38.1
≥ OR ≥150	28.2	36.5	37.4	38.1	38.1	38.1	38.1	38.1
≥ OR ≥0	28.2	36.5	37.6	38.4	38.4	38.4	38.4	38.4
TOTAL	122	155	160	163	163	163	163	163

TOTAL NUMBER OF OBS: 425

PCT FREQ NH &lt;S/O: 61.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
4.3	11.9	16.5	16.5	13.0	10.0	9.3	7.8	11.0	.2	462

PERIOD: (PRIMARY) 1931-1973  
(OVER-ALL) 1870-1973

MARCH

AREA 0007 SARAWAK  
3.7N 111.7E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2
1/2<1	PCP	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2
	TOT %	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3
1<2	PCP	.6	.6	.0	.0	.0	.2	.1	.0	.0	.0	1.4	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.6	.6	.0	.0	.0	.2	.1	.0	.0	.0	1.4	1.4
2<5	PCP	.2	.1	.1	.2	.2	.4	.1	.0	.0	.0	1.3	
	NO PCP	.7	.7	.3	.0	.3	.2	.0	.0	.0	.0	.2	1.3
	TOT %	.4	.3	.4	.2	.5	.5	.1	.0	.0	.0	.2	2.5
5<10	PCP	.5	.5	.0	.2	.1	.0	.0	.0	.0	.0	.2	1.9
	NO PCP	3.4	3.0	.9	.3	.2	.7	.3	.4	.0	.0	.5	11.6
	TOT %	4.9	3.5	.9	.5	.3	.7	.7	.4	.0	.0	.6	13.5
10+	PCP	.1	.4	.3	.2	.3	.0	.0	.0	.0	.0	.2	1.4
	NO PCP	16.2	38.8	8.1	2.6	1.8	1.7	.8	2.8	.0	.0	8.0	80.7
	TOT %	16.3	39.1	8.4	2.7	2.1	1.7	.8	2.8	.0	.0	8.2	82.1
TOT OBS													
TOT PCT													
		21.2	45.6	9.7	3.5	2.9	3.1	1.7	3.2	.0	9.1	100.0	636

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.1	.0	.2	.0	.0	.0	.0	.0	.0	.3	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.1	.0	.2	.0	.0	.0	.0	.0	.0	.3	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.4	.0	.0	.0	.1	.1	.0	.0	.0	.6	
	11-21	.4	.3	.0	.0	.0	.3	.0	.0	.0	.0	1.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.5	.7	.0	.0	.0	.4	.1	.0	.0	.0	1.6	
2<5	0-3	.0	.0	.0	.0	.1	.1	.0	.0	.0	.1	.4	
	4-10	.4	.6	.1	.2	.1	.0	.0	.1	.0	.0	1.6	
	11-21	.3	.1	.3	.0	.1	.3	.1	.0	.0	.0	1.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.6	.7	.4	.2	.4	.5	.1	.1	.0	.1	3.2	
5<10	0-3	.1	.3	.1	.1	.0	.0	.3	.0	.0	.6	1.6	
	4-10	1.8	2.6	.6	.3	.3	.8	.4	.3	.0	.0	7.0	
	11-21	1.8	2.4	.1	.0	.0	.0	.0	.0	.0	.0	4.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	3.7	5.4	.9	.5	.3	.7	.7	.4	.0	.6	13.0	
10+	0-3	1.2	2.6	1.8	.7	.1	.3	.0	.6	.0	7.8	15.1	
	4-10	11.7	28.4	5.7	2.1	1.9	1.0	.7	2.0	.0	.0	51.6	
	11-21	3.2	9.9	.4	.1	.0	.3	.0	.1	.0	.0	14.1	
	22+	.1	.6	.1	.0	.0	.0	.0	.0	.0	.0	.7	
	TOT %	16.1	39.4	8.1	2.9	2.0	1.6	.7	2.7	.0	7.9	41.6	
TOT OBS													
TOT PCT													
		21.1	46.3	9.4	3.6	2.7	3.1	1.6	3.2	.0	8.8	100.0	668

## MARCH

PERIOD: (PRIMARY) 1931-1973  
(OVER-ALL) 1870-1973APEZ 0007 SARAWAK  
3.7N 111.7E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00Z03	.0	.0	.0	10.4	13.0	7.8	1.7	1.7	.0	.0	34.8	65.2	115
06Z09	.0	.0	.9	10.3	13.8	12.1	3.4	.0	.0	.0	40.5	59.5	116
12Z15	.0	.0	.9	7.3	17.4	7.3	5.5	.9	.0	.0	39.4	60.6	109
18Z21	.9	.0	.9	7.4	9.3	12.0	.0	.0	.0	.0	30.6	69.4	108
TOT	1	0	3	40	60	44	12	3	0	0	163	285	448
PCT	.2	.0	.7	8.9	13.4	9.8	2.7	.7	.0	.0	36.4	63.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00Z03	.6	.0	.0	3.0	11.3	84.5	168
06Z09	.0	.0	2.8	3.4	9.0	84.7	177
12Z15	.0	.0	2.3	1.1	17.2	79.3	174
18Z21	.0	1.2	1.2	5.2	15.0	77.5	173
TOT	1	2	12	22	91	564	692
PCT	.1	.3	1.7	3.2	13.2	81.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00Z03	.0	.0	12.0	25.9	62.0	108
06Z09	.0	.9	13.5	29.7	56.8	111
12Z15	.0	1.0	8.7	33.0	58.3	103
18Z21	1.0	1.9	11.7	21.4	67.0	103
TOT	1	4	49	117	259	425
PCT	.2	.9	11.5	27.5	60.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.3	.3	.0	.0	.0	2	.6
85/89	.0	.0	.0	.3	.8	1.9	1.4	.6	18	5.0
80/84	.0	.0	.0	.0	.0	16.0	44.6	11.0	260	71.6
75/79	.0	.0	.0	.0	.0	1.7	11.6	9.1	81	22.3
70/74	.0	.0	.0	.0	.0	.0	.0	.6	2	.6
TOTAL	0	0	0	2	4	71	209	77	363	100.0
PCT	.0	.0	.0	.6	1.1	19.6	57.6	21.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.3	.0	.0	.0	.0	.3	.0	.0	.0
85/89	1.0	1.2	1.0	.1	.3	.3	.0	.1	.0	1.1
80/84	13.8	33.1	7.4	1.9	1.8	2.0	1.2	3.1	.0	7.4
75/79	4.0	8.1	1.3	1.0	1.5	1.0	.7	.1	.0	4.7
70/74	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
TOTAL	18.7	42.6	9.6	3.0	3.6	3.5	2.1	3.3	.0	13.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00Z03	88	86	84	81	79	74	74	80.7	205
06Z09	94	93	86	82	77	75	72	82.3	236
12Z15	88	85	84	81	77	75	72	80.9	206
18Z21	86	84	83	81	74	73	72	80.2	220
TOT	94	88	85	81	77	74	72	81.0	867

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00Z03	.0	.0	.0	.0	.0	9.3	56.8	33.7	87	95
06Z09	.0	2.2	4.3	34.8	42.4	16.3	81	92		
12Z15	.0	.0	.0	21.2	63.6	15.2	84	99		
18Z21	.0	.0	.0	9.4	68.8	21.9	86	96		
TOT	0	2	4	71	222	83	85	382		

PERIOD: (PRIMARY) 1931-1973  
(OVER-ALL) 1870-1973

MARCH

AREA 0007 SARAWAK  
3.7N 111.7E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TAP DIF	69 72	73 76	77 80	81 84	85 88	89 92	92	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.0	.0	.0	.2	1	.0	.2
9/10	.0	.0	.0	.0	.0	.0	.2	1	.0	.2
7/8	.0	.0	.0	.0	.2	.0	.0	1	.0	.2
6	.0	.0	.0	.0	.3	.0	.0	2	.0	.3
5	.0	.0	.0	.5	.7	.0	.3	9	.0	1.5
4	.0	.0	.2	1.7	1.8	.0	.0	22	.0	3.7
3	.0	.0	.0	.3	.2	.0	.0	3	.0	.5
2	.0	.0	.5	5.8	.3	.2	.0	41	.0	6.8
1	.0	.0	1.7	4.8	.2	.0	.0	40	.0	6.7
0	.0	.2	3.8	21.9	.3	.0	.0	157	.2	26.0
-1	.0	.0	5.5	9.0	.2	.0	.0	88	.0	14.7
-2	.2	.8	7.3	10.7	.3	.0	.0	116	.0	19.4
-3	.0	.2	3.5	2.2	.0	.0	.0	35	.0	5.8
-4	.0	1.0	4.2	1.8	.0	.0	.0	40	.2	6.5
-5	.2	1.3	2.2	.2	.0	.0	.0	23	.0	3.8
-6	.0	.5	.5	.3	.0	.0	.0	8	.2	1.2
-7/-8	.0	.3	.2	.8	.0	.0	.0	8	.2	1.2
-9/-10	.0	.3	.0	.0	.0	.0	.0	3	.0	.5
-11/-13	.2	.0	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	3	29	177	358	27	1	4	599	4	595
PCT	.5	4.8	29.5	59.8	4.5	.2	.7	100.0	.7	99.3

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	1.1	.0	.0	.0	.0	1.1	1.1	1.4	.0	.0	.0	.0	2.5
1-2	.0	8.5	3.1	.0	.0	.0	12.1	1.1	13.7	3.7	.0	.0	.0	18.5
3-4	.0	4.9	3.8	.0	.0	.0	8.8	.0	9.2	3.8	.0	.0	.0	13.0
5-6	.0	.4	.4	.0	.0	.0	.8	.0	.6	.7	.6	.0	.0	1.8
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	.0	.0	.0	1.7
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.0	.7
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	15.0	7.3	.0	.0	.0	22.9	2.3	24.9	9.9	.6	.7	.0	38.3

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	1.6	2.5	.0	.0	.0	.0	4.1	.7	.0	.0	.0	.0	.0	.7
1-2	1.1	4.0	.8	.0	.0	.0	5.9	.0	2.5	.0	.0	.0	.0	2.5
3-4	.0	.0	.8	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.6	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.4	.0	.4	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.7	7.1	1.7	.0	.4	.0	11.9	.7	2.5	.0	.0	.0	.0	3.2

PERIOD: (OVER-ALL) 1963-1973

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TABLE 18 (CONT)

AREA 000Y SARAWAK  
3.7N 111.7E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
1-2	.0	3.1	.0	.0	.0	.0	3.1	.0	1.4	.0	.0	.0	.0	2.0	
3-4	.0	.4	.0	.0	.0	.0	.4	.0	.1	.1	.0	.0	.0	.3	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	.0	.0	.0	1.7	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	3.5	.0	.0	.0	.0	3.5	.0	1.7	2.4	.0	.0	.0	4.1	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.4	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	.4	.0	.0	.0	.0	.4	.0	3.1	.3	.0	.0	.0	3.4	
3-4	.0	.0	.4	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.8	.4	.0	.0	.0	1.8	.0	3.2	.3	.0	.0	.0	3.9	89.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	14.1	5.6	.0	.0	.0	.0	19.8	
1-2	2.0	36.7	8.5	.0	.0	.0	48.0	
3-4	.0	14.7	9.0	.0	.0	.0	23.7	
5-6	.6	1.7	2.8	.6	.0	.0	5.6	
7	.0	.0	1.7	.0	.0	.0	1.7	
8-9	.0	.0	.0	.0	1.1	.0	1.1	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	17.5	58.8	22.0	.0	1.1	.0	100.0	177

PERIOD: (OVER-ALL) 1950-1973

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	7.0	29.7	12.0	2.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	178	2
6-7	.0	3.2	7.6	7.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	68	4
8-9	.0	.6	.6	3.8	.6	1.3	.0	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	30	7
10-11	.0	.0	.0	.3	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	6
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
MEAN	11.4	4.4	1.7	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	64	1
TOTAL	63	150	73	32	12	3	0	6	0	0	0	0	0	0	0	0	0	0	0	343	3
PCT	18.4	37.9	21.9	15.2	3.5	1.3	.0	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	



PERIOD: (PRIMARY) 1929-1973  
(OVER-ALL) 1898-1973

APRIL

TABLE 1

AREA 0007 SARAWAK  
3.6N 111.7E

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WNO DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEAT
N	4.5	.0	.0	.0	.0	.0	.0	4.5	.0	6.8	1.5	.0	.0	.0	88.6
NE	1.5	.0	.0	.0	.0	.0	.0	1.5	.0	2.7	.8	.0	.0	.0	93.5
E	.0	.0	.0	.0	.0	.0	.0	.0	2.5	4.4	.0	.0	.0	.0	93.0
SE	6.4	5.1	5.1	.0	.0	.0	.0	16.7	.0	1.3	.0	.0	.0	.0	82.1
S	11.5	10.6	3.8	.0	.0	.0	.0	26.0	2.9	5.8	.0	.0	.0	.0	67.3
SW	5.7	.8	.0	.0	.0	.0	.0	6.6	.8	1.8	.0	.0	.0	.0	91.8
W	5.3	.0	.0	.0	.0	.0	.0	5.3	3.5	3.5	.0	.0	2.6	.0	85.1
NW	8.4	.0	.0	.0	.0	.0	.0	8.4	3.4	.0	.0	.0	.0	.0	88.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.1	.0	1.1	.0	.0	.0	.0	2.2	1.1	5.5	1.1	.0	.0	.0	90.1
TOT PCT	3.5	.9	.7	.0	.0	.0	.0	5.0	1.3	3.9	.7	.0	.4	.0	89.2
TOT OBS:	461														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGC WD PCPN	FGC WD PCPN PAST HR	SMOKE HAZE	SPRAY BLNG	DUST SNOW	NO SIG WEA
0000	6.5	1.6	1.6	.0	.0	.0	.0	9.7	1.6	.8	2.4	.0	.0	.0	.0	86.3
0600	3.1	.8	.0	.0	.0	.0	.0	3.9	2.4	.0	.0	.0	.0	.0	.0	93.7
1200	1.6	.8	.0	.0	.0	.0	.0	2.3	.8	7.0	.8	.0	.8	.0	.0	88.4
1800	4.2	.0	.8	.0	.0	.0	.0	5.0	.8	10.1	.8	.0	.8	.0	.0	86.0
TOT PCT TOT OBS:	3.8 499	.8	.6	.0	.0	.0	.0	5.2	1.4	4.4	1.0	.0	.4	.0	.0	88.2

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	4.7	10.4	.7	.0	.0	.0	15.8	5.4	10.3	16.1	11.2	20.9	15.9	24.0	18.8	22.8		
NE	6.0	19.9	9.0	.0	.0	.0	24.9	6.4	29.0	21.4	29.1	26.4	27.0	22.9	22.4	17.5		
E	1.6	5.1	1.1	.0	.0	.0	7.8	2.5	11.2	10.7	9.7	.9	4.9	6.3	9.9	5.3		
SE	.5	3.4	.3	.0	.0	.0	4.2	6.2	7.0	12.5	6.3	1.8	.8	.0	2.2	5.3		
S	1.7	3.8	.7	.0	.0	.0	6.2	6.1	6.4	3.6	12.5	2.7	5.1	.0	3.1	8.3		
SW	1.4	5.9	.9	.0	.0	.0	8.2	6.6	8.1	23.2	7.1	12.3	8.1	4.2	3.8	9.2		
W	1.8	4.1	.8	.0	.0	.0	6.7	5.9	2.1	5.4	6.0	12.3	9.8	12.5	5.0	7.0		
NW	1.7	4.7	.2	.0	.0	.0	6.6	5.2	1.7	.0	2.6	13.6	11.4	5.2	11.8	1.8		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	19.4						19.6	.0	28.1	7.1	15.5	9.1	17.1	29.0	23.1	22.8		
TOT OBS	244	335	49	0	0	0	628		121	28	116	53	123	24	104	57		
TOT PCT	38.9	53.3	7.8	.0	.0	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	11.1	4.7	.0	.0	.0		15.8	5.4	11.4	14.3	17.2	20.2		
NE	14.3	10.6	.0	.0	.0		24.9	6.4	24.3	28.2	26.4	20.7		
E	4.6	3.1	.2	.0	.0		7.8	6.5	11.1	6.9	5.1	8.2		
SE	2.8	1.4	.0	.0	.0		4.2	6.2	8.1	4.8	.7	3.3		
S	3.8	2.3	.1	.0	.0		6.2	6.1	5.9	9.4	4.3	5.0		
SW	4.3	3.8	.1	.0	.0		8.2	6.6	10.9	8.8	7.5	5.7		
W	4.4	2.3	.0	.0	.0		6.7	5.9	2.7	8.0	10.2	5.7		
NW	5.1	1.4	.0	.0	.0		6.6	5.2	1.5	6.1	10.4	8.2		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	19.4						19.6	.0	24.2	13.5	18.4	23.0		
TOT OBS	439	187	2	0	0	628		4.9	149	171	167	161		
TOT PCT	69.9	29.8	.3	0	0		100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1929-1973  
(OVER-ALL) 1858-1973

APRIL

AREA 0007 SARAWAK  
3.6N 111.7E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
0000	24.2	16.8	49.7	9.4	.0	.0	.0	4.7	100.0	149
0600	13.5	23.4	53.2	9.9	.0	.0	.0	5.3	100.0	171
1200	18.4	19.7	54.4	7.5	.0	.0	.0	5.1	100.0	147
1800	23.0	17.4	55.3	4.3	.0	.0	.0	4.5	100.0	161
TOT	123	122	334	49	0	0	0	4.9		628
PCT	19.6	19.4	53.2	7.8	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.5	3.9	3.9	1.4		4.1
NE	8.0	10.0	10.2	1.5		3.9
E	1.4	3.3	3.3	.8		4.4
SE	.3	1.2	1.9	.8		5.3
S	.0	1.4	1.3	1.8		6.1
SW	.3	1.5	2.3	.4		5.3
W	.6	1.4	3.5	.8		5.1
NW	1.9	1.6	1.3	1.7		4.0
VAR	.0	.0	.0	.0		.0
CALM	6.1	5.8	9.0	1.6		4.1
TOT OBS	70	94	114	33	311	4.3
TOT PCT	22.5	30.2	36.7	10.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	999	999	1999	3499	4999	6499	7999			
.0	.0	.0	.3	2.3	1.3	.3	.0	.0	.0	9.4	
.0	.0	.0	.3	1.4	1.4	.7	.1	.3	.0	25.5	
.0	.0	.0	.0	.0	.6	.9	.2	.0	.0	7.2	
.0	.1	.0	.0	.6	.4	.3	.0	.0	.0	2.8	
.0	.2	.0	.5	.2	1.1	.0	.0	.0	.0	2.4	
.1	.0	.0	.6	.8	.2	.0	.0	.0	.0	3.4	
.2	.0	.0	.6	.9	.2	.3	.0	.0	.0	4.0	
.0	.0	.0	.6	.7	.2	.3	.0	.0	.0	3.9	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	3.2	.6	.0	.3	.0	.3	18.0	
1	1	0	9	31	18	9	2	1	1	238	311
.3	.4	.0	2.4	10.0	5.8	2.9	.6	.3	.3	76.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NM)		VSBY (NM)		VSBY (NM)		VSBY (NM)		VSBY (NM)	
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0		
>6500	.9	.9	.9	.9	.7	.7	.9	.9		
>5000	1.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5		
>3500	3.8	3.8	4.1	4.1	4.1	4.1	4.1	4.1		
>2000	7.9	9.4	9.7	10.3	10.3	10.3	10.3	10.3		
>1000	16.2	18.8	19.7	20.3	20.3	20.3	20.3	20.3		
>600	18.5	21.5	22.4	22.9	22.9	22.9	22.9	22.9		
>300	18.5	21.5	22.4	22.9	22.9	22.9	22.9	22.9		
>150	18.8	21.8	22.6	23.2	23.2	23.2	23.2	23.2		
>0	18.8	22.1	22.9	23.5	23.5	23.5	23.5	23.5		
TOTAL	64	75	78	80	80	80	80	80		

TOTAL NUMBER OF OBS: 340

PCT FREQ NH <5/8: 76.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
4.6	18.0	18.0	20.8	13.7	6.6	7.1	3.6	5.5	.3	366

PERIOD: (PRIMARY) 1929-1973  
(OVER-ALL) 1858-1973

APRIL

AREA 0007 SARAWAK  
3.6N 111.7E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.0	.3	.1	.0	.0	.0	.0	.4	
2<5	PCP	.0	.0	.0	.2	.0	.0	.0	.2	.0	.0	.4	
	NO PCP	.0	.7	.0	.0	.2	.2	.2	.2	.0	.0	1.5	
	TOT %	.0	.7	.0	.2	.2	.2	.2	.4	.0	.0	2.0	
5<10	PCP	.7	.4	.0	.2	.4	.2	.3	.1	.0	.4	2.8	
	NO PCP	2.0	3.3	.6	.5	.9	1.6	.9	1.2	.0	3.5	14.3	
	TOT %	2.6	3.7	.6	.7	1.3	1.8	1.3	1.4	.0	3.9	17.2	
10+	PCP	.0	.0	.0	.3	.9	.2	.0	.2	.0	.0	1.5	
	NO PCP	11.7	24.0	8.0	3.0	2.9	4.3	4.7	4.5	.0	15.7	78.9	
	TOT %	11.7	24.0	8.0	3.3	3.8	4.9	4.7	4.7	.0	15.7	80.4	
TOT OBS													460
TOT PCT													

APRIL

PERIOD: (PRIMARY) 1929-1973  
(OVER-ALL) 1958-1973AREA 0007 SARAWAK  
3.0N 111.7E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 399	400 499	500 599	600 699	700 799	800 899	900 999	1000 1099	1100 1199	1200 1299	TOTAL OBS
00003	.0	.0	.0	4.3	13.0	5.4	4.3	1.1	.0	2.2	30.4	59.6	92
06009	.0	1.1	.0	2.2	7.5	6.5	2.2	.0	.0	.0	19.4	80.6	93
12015	.0	.0	.0	2.1	7.4	6.3	2.1	.0	.0	.0	17.9	82.1	95
18021	1.2	.0	.0	1.2	10.8	4.8	1.2	1.2	.0	.0	21.7	78.3	83
TOT	1	1	0	9	35	21	9	2	1	2	81	282	363
PCT	.3	.3	.0	2.5	9.6	5.8	2.5	.6	.3	.6	22.3	77.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+ TOTAL OBS
00003	.0	.0	.0	3.1	12.6	84.3 127
06009	.0	.0	.0	.0	17.0	83.0 135
12015	.0	.0	.0	4.5	16.4	79.1 136
18021	.0	.0	1.6	.0	18.5	79.8 124
TOT	0	0	2	10	84	424 520
PCT	.0	.0	.4	1.9	16.2	81.5 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 CELYD	<600 CELYD	<1000 CELYD	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	7.0	24.4	58.6	86
06009	.0	1.1	3.4	17.0	78.5	88
12015	.0	.0	4.6	16.1	79.3	87
18021	1.3	1.3	5.1	17.7	77.2	79
TOT	1	2	17	64	259	340
PCT	.3	.6	5.0	16.8	76.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	.0	.3	.0	.0	.0	1	.3
90/94	.0	.0	.0	.3	.0	1.0	.0	.0	4	1.3
85/89	.0	.0	.0	.0	2.0	7.9	3.3	2.3	47	13.5
80/84	.0	.0	.0	.0	3.3	23.0	39.1	10.5	231	76.0
75/79	.0	.0	.0	.0	.0	.0	1.3	5.6	21	6.9
TOTAL	0	0	0	1	17	97	133	56	304	100.0
PCT	.0	.0	.0	.3	5.6	31.9	43.8	18.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0
90/94	.2	.7	.0	.0	.0	.1	.2	.0	.0	.0
85/89	2.0	5.3	1.6	1.0	.2	.6	.9	.3	.0	3.6
80/84	9.2	22.6	7.0	3.0	2.8	4.8	5.1	.0	16.8	
75/79	.8	.8	.3	.4	.8	.4	.7	.7	.0	2.0
TOTAL	12.2	29.9	8.9	4.4	3.8	5.8	6.6	6.1	.0	22.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	93	90	86	82	78	74	73	82.1	154
06009	95	92	89	84	80	76	76	84.3	173
12015	95	87	86	82	80	78	75	82.6	156
18021	87	86	84	82	79	77	74	81.6	172
TOT	95	90	87	82	79	76	73	82.7	655

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	3.4	21.6	47.7	27.3	84	86
06009	.0	1.2	9.3	43.0	33.7	12.8	79	96
12015	.0	.0	4.3	33.7	42.7	19.1	62	89
18021	.0	.0	2.6	23.4	51.9	22.1	63	77
TOT	0	1	17	104	149	69	52	340

PERIOD: (PRIMARY) 1929-1973  
(OVER-ALL) 1854-1973

APRIL

AREA 0007 SARAWAK  
3.6N 111.7E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	NO FOG
11/13	.0	.0	.0	.0	.0	.2	1	.0	.2
9/10	.0	.0	.0	.4	.2	.4	5	.0	1.1
7/8	.0	.0	.0	.4	.2	.0	3	.0	.6
6	.0	.0	.2	.4	.0	.0	3	.0	.6
5	.0	.0	.4	.9	1.1	.0	11	.0	2.4
4	.0	.0	.6	1.3	.6	.0	12	.0	2.6
3	.0	.0	.0	1.7	.2	.0	9	.0	1.9
2	.0	.0	2.1	2.6	.0	.0	22	.0	4.7
1	.0	.0	3.9	1.7	.0	.0	26	.0	5.6
0	.0	.6	10.3	2.6	.0	.0	63	.4	13.1
-1	.0	1.3	16.5	1.9	.0	.0	92	.0	19.7
-2	.0	1.7	17.3	1.1	.0	.0	94	.2	19.9
-3	.2	1.3	9.0	.4	.0	.0	51	.2	10.7
-4	.2	2.6	5.4	.2	.0	.0	79	.0	8.4
-5	.4	2.1	1.7	.0	.0	.0	20	.2	4.1
-6	.0	1.5	.4	.0	.0	.0	9	.0	1.9
-7/-8	.2	.9	.0	.0	.0	.0	5	.0	1.1
-9/-10	.2	.0	.0	.0	.0	.0	1	.0	.2
-11/-13	.2	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	7	56	317	73	11	.6	467	5	462
PCT	1.5	12.0	67.9	15.6	2.4	.6	100.0	1.1	98.9

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	2.8	.0	.0	.0	.0	.0	2.8	2.4	1.7	.0	.0	.0	.0	4.1
1-2	.0	4.8	.6	.0	.0	.0	5.4	7.0	9.4	7.2	.0	.0	.0	23.7
3-4	.0	1.3	.6	.0	.0	.0	1.9	.0	2.4	.9	.0	.0	.0	3.3
5-6	.0	1.1	.0	.0	.0	.0	1.1	.0	.7	.0	.0	.0	.0	.7
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.8	7.2	1.1	.0	.0	.0	11.1	9.4	14.3	8.1	.0	.0	.0	31.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	2.0	.0	.0	.0	.0	2.6	.2	.0	.0	.0	.0	.0	.2
1-2	1.9	4.8	1.7	.0	.0	.0	8.3	.7	1.1	.2	.0	.0	.0	2.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.4	6.9	1.7	.0	.0	.0	10.9	.9	1.1	.2	.0	.0	.0	2.2

PERIOD: (OVER-ALL) 1963-1973

APRIL

AREA 0007 SARAWAK  
3.6N 111.7E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	1.3	.0	.0	.0	.0	.0		1.3	.0	.0	.0	.0	.0	.0		.0
1-2	.0	2.6	.0	.0	.0	.0		2.6	.0	.0	.0	.0	.0	.0		5.7
3-4	.0	.6	.6	.0	.0	.0		1.1	.0	.9	.2	.0	.0	.0		1.1
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	1.3	3.1	.6	.0	.0	.0		5.0	.0	5.7	1.1	.0	.0	.0		6.9

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	1.3	.7	.0	.0	.0	.0		2.2	.2	.7	.0	.0	.0	.0		.9	
1-2	.0	3.3	.6	.0	.0	.0		3.9	.7	.9	.0	.0	.0	.0		1.7	
3-4	.0	1.5	1.5	.0	.0	.0		3.0	.0	.0	.0	.0	.0	.0		.0	
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.4	.0	.0	.0	.0		.4	
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	1.5	5.6	2.0	.0	.0	.0		9.1	.9	2.0	.0	.0	.0	.0		3.0	80.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.9	4.9	.0	.0	.0	.0	36.8	
1-2	11.1	29.9	10.4	.0	.0	.0	51.4	
3-4	.0	6.3	3.5	.0	.0	.0	9.7	
5-6	.0	2.1	.0	.0	.0	.0	2.1	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	43.1	43.1	13.9	.0	.0	.0	100.0	144

PERIOD: (OVER-ALL) 1949-1973

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	12.9	34.1	8.0	1.9	1.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	139	2
6-7	.0	3.4	4.5	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	24	3
8-9	.0	.0	1.5	2.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	4
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
12-13	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	3
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	29.9	3.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	73	0
TOTAL	97	109	38	15	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	264	2
PCT	36.7	41.2	14.4	5.7	1.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1929-1972  
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MAY

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3.9N 111.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO. SIG
	RAIN	RAIN SHR	DRZL	FRZG	SNOW	OTHER	HAIL	PCPN AT	PCPN PAST	THDR	FOG	FOG WD	SMOKE	SPRAY	
				PCPN		FRZN		OB TIME	HR	LTNG	WD	PCPN	HAZE	BLWG	
						PCPN					PCPN	PAST HR		BLWG	
N	5.5	7.5	.0	.0	.0	.0	.0	13.0	.0	2.7	.0	.0	.0	.0	84.2
NE	2.1	2.6	.5	.0	.0	.0	.0	5.2	.0	8.3	.0	.0	.0	.0	86.5
E	2.5	.0	6.2	.0	.0	.0	.0	8.6	.0	.0	.0	.0	.0	.0	91.4
SE	2.6	4.2	.5	.0	.0	.0	.0	7.4	2.1	4.2	.0	.0	.0	.0	86.3
S	5.0	.7	1.4	.0	.0	.0	.0	7.1	2.9	1.4	.0	.0	.0	.0	88.6
SW	7.2	2.5	.3	.0	.0	.0	.0	10.0	2.5	2.5	.0	.0	.0	.0	86.3
W	8.4	3.8	1.3	.0	.0	.0	.0	13.5	1.7	5.5	.0	.0	.0	.0	81.0
NW	8.0	.4	.0	.0	.0	.0	.0	8.5	.0	6.7	.0	.0	.0	.0	84.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.7	.9	.0	.0	.0	.0	.0	3.6	.9	2.7	.0	.0	.0	.0	92.8
TOT PCT	4.9	2.2	.9	.0	.0	.0	.0	8.0	1.3	3.6	.0	.0	.0	.0	87.4
TOT OBS	549														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO. SIG
	RAIN	RAIN SHR	DRZL	FRZG	SNOW	OTHER	HAIL	PCPN AT	PCPN PAST	THDR	FOG	FOG WD	SMOKE	SPRAY	
				PCPN		FRZN		OB TIME	HR	LTNG	WD	PCPN	HAZE	BLWG	
						PCPN					PCPN	PAST HR		BLWG	
00003	5.6	4.4	1.9	.0	.0	.0	.0	11.9	1.9	.6	.0	.0	.0	.0	85.6
06009	2.5	2.5	.6	.0	.0	.0	.0	5.6	1.3	.6	.0	.0	.0	.0	92.3
12015	7.6	1.4	.0	.0	.0	.0	.0	9.0	.7	5.5	.0	.0	.0	.0	85.3
18021	4.5	.0	.9	.0	.0	.0	.0	5.5	.9	10.0	.0	.0	.0	.0	84.3
TOT PCT	5.0	2.3	.9	.0	.0	.0	.0	8.2	1.2	3.7	.0	.0	.0	.0	87.3
TOT OBS	575														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL	PCT	MEAN	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18
								OBS	FREQ	SPD							
N	3.2	2.9	.3	.0	.0	.0		6.4	4.7		7.1	7.1	5.2	6.7	6.5	7.1	8.6
NE	1.7	5.4	.2	.0	.0	.0		7.3	5.8		7.1	5.4	9.5	5.8	10.7	5.4	4.7
E	2.5	3.5	.5	.0	.0	.0		6.5	5.3		7.4	14.3	7.9	10.0	3.7	14.3	1.6
SE	3.1	5.5	.8	.0	.0	.0		8.9	5.4		10.3	12.5	10.2	5.8	3.8	1.8	11.2
S	4.3	8.0	1.0	.0	.0	.0		13.4	5.5		19.0	12.5	19.5	10.8	7.9	7.1	10.7
SW	4.6	10.7	1.1	.3	.0	.0		16.7	6.1		12.7	25.0	15.6	20.0	16.6	26.8	11.2
W	2.7	8.6	1.1	.1	.0	.0		12.6	6.6		9.2	14.3	11.0	19.2	17.0	14.3	8.9
NW	2.4	7.3	.2	.0	.0	.0		9.8	5.1		9.0	8.9	6.3	11.7	12.9	12.5	9.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0
CALM	18.4							18.4	.0		18.1	.0	14.8	10.0	21.0	10.7	33.3
TOT OBS	308	373	95	3	0	0		719	4.6		155	28	155	60	143	28	96
TOT PCT	42.8	51.9	4.9	.4	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL	PCT	MEAN	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	
						OBS	FREQ	SPD	03	09	15	21	
N	4.7	1.7	.0	.0	.0		6.4	4.7	7.1	5.6	6.6	6.5	
NE	4.6	2.7	.0	.0	.0		7.3	5.8	6.8	8.5	9.8	3.3	
E	4.8	1.7	.0	.0	.0		6.5	5.3	8.5	8.5	5.4	2.7	
SE	5.9	2.9	.0	.0	.0		8.9	5.4	10.7	9.0	3.5	12.8	
S	9.1	4.1	.1	.0	.0		13.4	5.5	13.0	17.1	7.7	8.7	
SW	11.3	5.0	.3	.1	.0		16.7	6.1	14.6	16.9	18.3	17.3	
W	7.6	4.5	.5	.0	.0		12.6	6.6	10.0	13.3	16.5	10.3	
NW	7.9	2.0	.0	.0	.0		9.8	5.1	9.0	7.8	12.9	10.3	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	18.4						18.4	.0	19.3	13.5	19.3	28.0	
TOT OBS	934	177	7	1	0		719	4.6	183	215	171	150	
TOT PCT	74.3	24.6	1.0	.1	.0		100.0		100.0	100.0	100.0	100.0	

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47	48+			
0000	15.3	26.8	52.5	4.9	.5	.0	.0	4.7	100.0	183
0600	13.5	24.2	54.4	7.4	.5	.0	.0	5.3	100.0	215
1200	19.1	24.6	52.0	3.5	.6	.0	.0	4.4	100.0	171
1800	28.0	22.0	47.3	2.7	.0	.0	.0	3.9	100.0	150
TOT	192	176	373	38	3	0	0	4.6		719
PCT	18.4	24.5	51.9	4.9	.4	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.6	1.8	3.8	.7		4.9
NE	1.1	3.7	3.4	.0		4.3
E	2.4	1.4	2.6	.6		4.1
SE	1.7	1.4	2.8	2.6		5.3
S	1.8	3.3	8.8	3.1		5.3
SW	1.4	3.6	5.0	3.1		5.3
W	2.0	.9	4.3	2.6		5.5
NW	1.5	3.1	.9	1.1		4.1
VAR	.0	.0	.0	.0		.0
CALM	6.1	5.8	5.1	4.4		4.2
TOT OBS	58	74	109	54	295	4.8
TOT PCT	19.7	25.1	36.9	18.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.7	1.4	1.2	.0	.0	.0	.0	4.7	
.0	.3	.0	.0	.7	.5	.0	.0	.0	.0	6.7	
.0	.0	.0	.5	1.0	.0	.0	.0	.0	.0	5.4	
.0	.0	.3	.5	1.0	.0	.3	.0	.0	.0	6.4	
.0	.0	.0	.8	1.8	.3	.3	.0	.0	.3	13.5	
.0	.0	.0	.8	2.0	.8	.2	.0	.3	.0	8.9	
.0	.3	.0	1.2	1.5	.7	.2	.0	.0	.0	8.3	
.0	.1	.0	.1	.1	.2	.0	.0	.0	.0	6.2	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	2.4	1.0	1.0	.0	.0	.0	.0	18.9	
.0	2	1	21	31	14	3	0	1	1	221	285
.0	.7	.3	7.1	10.5	4.7	1.0	.0	.3	.3	74.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.7	.7	.7	.7	.7	.7	.7	.7
>5000	.7	.7	.7	.7	.7	.7	.7	.7
>3500	1.0	1.6	1.6	1.6	1.6	1.6	1.6	1.6
>2000	5.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
>1000	15.7	17.0	17.0	17.3	17.3	17.3	17.3	17.3
>600	20.3	23.5	23.9	24.5	24.5	24.5	24.5	24.5
>300	20.6	23.9	24.2	24.8	24.8	24.8	24.8	24.8
>150	20.9	24.3	24.8	25.3	25.3	25.3	25.3	25.3
>0	20.9	24.3	24.8	25.3	25.3	25.3	25.3	25.3
TOTAL	64	75	76	78	78	78	78	78

TOTAL NUMBER OF OBS: 306

PCT FREQ NH <5/8: 74.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
6.5	15.2	21.7	15.2	13.2	4.8	7.3	6.2	9.9	185



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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
< 1/2	PCP	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.2	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.2	.0	.1	*	.0	.0	.0	.0	.0	.0	.4	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
	TOT %	.2	.0	.1	*	.0	.0	.0	.2	.0	.0	.6	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.3	.3	.2	.2	.0	.0	.0	.0	.9	
	TOT %	.0	.0	.3	.3	.2	.2	.0	.0	.0	.0	.9	
5<10	PCP	.2	.0	.2	.1	.4	1.2	.8	.8	.0	.4	4.0	
	NO PCP	.8	.6	1.0	2.2	2.3	4.3	2.3	3.0	.0	7.7	24.3	
	TOT %	1.0	.6	1.2	2.3	2.6	5.5	3.1	3.8	.0	8.0	28.3	
10+	PCP	.5	.5	.3	.5	.4	.3	.6	*	.0	.4	3.5	
	NO PCP	5.0	7.7	5.4	5.5	9.4	8.7	7.1	6.0	.0	11.9	66.6	
	TOT %	5.5	8.1	5.7	6.0	9.8	9.0	7.7	6.0	.0	12.2	70.1	
TOT OBS													548
TOT PCT		6.7	8.8	7.4	8.7	12.8	14.6	10.8	10.0	.0	20.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	4-10	.0	.0	.1	*	.0	.0	.0	.2	.0	.0	.4	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.0	.1	*	.0	.0	.0	.2	.0	.0	.6	
2<5	0-3	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.5	
	4-10	.0	.0	.0	.0	.3	.1	.0	.0	.0	.0	.4	
	11-21	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.3	.3	.3	.3	.0	.0	.0	.0	1.1	
5<10	0-3	.7	.3	.4	1.8	1.3	2.2	.8	1.1	.0	7.9	16.4	
	4-10	.3	.4	.8	.5	1.3	2.9	1.5	2.7	.0	.0	10.2	
	11-21	.0	.0	.0	.0	.1	.3	.5	.0	.0	.0	.9	
	22+	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.4	
	TOT %	1.0	.6	1.2	2.3	2.6	5.5	3.0	3.8	.0	7.9	27.9	
10+	0-3	2.8	1.9	1.9	1.5	.4	1.4	1.8	1.3	.0	12.3	27.5	
	4-10	2.1	5.8	3.2	4.7	.4	6.3	3.2	4.4	.0	.0	38.4	
	11-21	.4	.3	.7	.4	.8	.8	.7	.3	.0	.0	4.3	
	22+	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	TOT %	5.4	7.9	5.7	6.7	10.0	8.8	7.7	5.9	.0	12.3	70.4	
TOT OBS													560
TOT PCT		6.3	8.6	7.3	9.3	12.9	14.6	10.8	9.8	.0	20.2	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HR	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
(GMT)	149	289	599	999	1999	3499	4999	6499	7999				
00003	.0	1.0	1.0	7.2	12.4	6.2	2.1	.0	.0	1.0	30.9	69.1	97
06009	.0	1.0	.0	9.3	9.3	5.2	.0	.0	.0	.0	24.7	75.3	97
12015	.0	.0	.0	2.5	8.9	1.3	1.3	.0	.0	.0	13.9	86.1	79
18021	.0	.0	.0	6.7	10.0	3.3	.0	.0	1.7	.0	21.7	78.3	60
TOT	0	2	1	22	34	14	3	0	1	1	78	235	333
PCT	.0	.6	.3	6.6	10.2	4.2	.9	.0	.3	.3	23.4	76.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HR	<1/2	1/2<1	1-2	2<5	5<10	10+	TOTAL
(GMT)							OBS
00003	.6	.0	.6	1.2	24.7	72.8	102
06009	.0	.0	.6	1.8	28.0	69.5	104
12015	.0	.0	.0	.7	26.4	73.0	148
18021	.0	.0	.9	.0	32.1	67.0	112
TOT	1	0	3	6	161	415	586
PCT	.2	.0	.5	1.0	27.5	70.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HR	<150 <400	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL
(GMT)						OBS
00003	.0	2.2	12.4	22.5	65.2	89
06009	.0	1.1	11.5	16.1	72.4	87
12015	.0	.0	2.7	12.2	85.1	74
18021	.0	.0	7.1	16.1	76.8	56
TOT	0	3	27	52	227	306
PCT	.0	1.0	8.8	17.0	74.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL	PCT
									OBS	FREQ
95/99	.0	.0	.0	.3	.3	.0	.0	.0	2	.6
90/94	.0	.0	.0	.3	1.3	.3	.3	.0	7	2.2
85/89	.0	.0	.0	.0	2.2	12.7	8.6	.3	75	23.8
80/84	.0	.0	.0	.0	.6	18.7	41.0	7.6	214	67.9
75/79	.0	.0	.0	.0	.0	1.6	3.8	.3	17	5.4
TOTAL	0	0	0	2	14	100	162	37	319	100.0
PCT	.0	.0	.0	.6	4.4	31.7	51.4	11.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0
90/94	.0	.0	.0	.0	.2	.1	.0	.1	.0	1.0
85/89	2.0	3.4	1.2	1.6	3.7	3.3	2.2	2.3	.0	4.1
80/84	4.7	4.4	4.4	6.6	11.8	9.0	8.7	5.8	.0	12.4
75/79	.3	.3	.0	.3	2.1	.4	.3	.3	.0	1.3
TOTAL	7.0	8.2	6.0	8.5	17.9	13.1	12.1	8.5	.0	18.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL
(GMT)									OBS
00003	89	88	86	83	77	75	75	82.2	181
06009	97	95	91	85	79	76	75	84.9	205
12015	87	86	86	83	79	78	77	82.8	167
18021	86	85	85	82	78	75	73	81.9	154
TOT	97	91	86	83	78	76	73	83.1	707

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL
(GMT)										OBS
00003	.0	.0	.0	21.6	53.6	24.7	85			97
06009	.0	2.2	12.0	38.0	43.5	4.3	78			92
12015	.0	.0	2.4	38.6	49.4	9.6	80			83
18021	.0	.0	3.2	34.9	57.1	4.8	51			63
TOT	0	2	15	110	159	39	81			335

PERIOD: (PRIMARY) 1929-1972  
(OVER-ALL) 1869-1972

MAY

TABLE 17

AREA 0007 SARAWAK  
3.5N 111.6E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	>92	TOT	% FOG	MO ADG
9/10	.0	.0	.0	.0	.0	.2	1	.0	.2
7/8	.0	.0	.0	.0	.2	.0	1	.0	.2
6	.0	.0	.0	.2	.6	.0	4	.0	.8
5	.0	.0	.0	.0	.6	.2	4	.0	.8
4	.0	.0	.0	1.6	.6	.0	11	.0	2.2
3	.0	.0	.6	.8	1.6	.0	15	.0	3.0
2	.0	.0	1.0	2.6	.2	.0	19	.0	3.8
1	.0	.0	2.2	4.4	.2	.0	34	.0	6.8
0	.0	.6	6.0	4.6	.0	.0	56	.0	11.3
-1	.2	.6	12.5	4.0	.0	.0	86	.0	17.3
-2	.0	.4	13.9	2.8	.0	.0	85	.0	17.1
-3	.0	1.0	8.2	.4	.0	.0	48	.0	9.7
-4	.0	1.6	8.5	.0	.0	.0	51	.0	10.3
-5	.0	3.4	1.2	.0	.0	.0	23	.0	4.6
-6	.4	3.2	.8	.0	.0	.0	22	.0	4.4
-7/-8	.6	4.8	.8	.0	.0	.0	31	.0	6.2
-9/-10	.4	.8	.0	.0	.0	.0	4	.0	1.2
TOTAL	8	83	107	20	2	497	0	497	
PCT	1.6	16.7	55.7	21.5	4.0	.4	100.0	100.0	

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	2.1	.0	.0	.0	.0	.0	2.1	.0	1.0	.0	.0	.0	.0	1.0
1-2	.0	1.0	.8	.0	.0	.0	1.8	.0	4.4	1.3	.0	.0	.0	6.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.1	1.0	.8	.0	.0	.0	3.9	.0	5.5	1.3	.0	.0	.0	7.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0
1-2	.8	2.9	.0	.0	.0	.0	3.8	.0	3.4	1.3	.0	.0	.0	4.7
3-4	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	.0	.0	.0	2.1
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.8	2.9	.0	.0	.0	.0	4.7	.0	5.5	1.3	.0	.0	.0	6.8

PERIOD: (OVER-ALL) 1963-1972

MAY

ARFA 0007 SARAWAK  
3.5N 111.6E

TABLE 18 (CONT)

ACT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S								SW							
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	1.0	1.0	.0	.0	.0	.0	2.1	1.0	1.3	.0	.0	.0	.0	2.3	
1-2	1.8	7.6	2.6	.0	.0	.0	12.0	1.3	8.3	1.6	.0	.0	.0	11.2	
3-4	.0	2.1	.8	.0	.0	.0	2.9	.0	3.4	.3	1.0	.0	.0	4.7	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	1.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.9	11.7	3.4	.0	.0	.0	18.0	2.3	13.0	1.8	1.0	.0	.0	18.2	

W								NW								TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT	
<1	.0	3.9	.0	.0	.0	.0	3.9	.0	1.0	.0	.0	.0	.0	1.0		
1-2	.0	3.6	1.6	.0	.0	.0	5.2	.0	3.1	.3	.0	.0	.0	3.4		
3-4	.0	1.8	2.1	.0	.0	.0	3.9	.0	1.0	.0	.0	.0	.0	1.0		
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	.0	9.4	3.6	.0	.0	.0	13.0	.0	5.2	.3	.0	.0	.0	5.5	77.1	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	29.6	8.2	.0	.0	.0	.0	37.8	
1-2	4.1	33.7	9.2	.0	.0	.0	46.9	
3-4	.0	10.2	3.1	1.0	.0	.0	14.3	
5-6	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	1.0	.0	.0	.0	.0	1.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	33.7	53.1	12.2	1.0	.0	.0	100.0	98

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	11.3	32.1	10.0	1.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	122	2
6-7	.0	1.4	2.6	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	3
8-9	.5	.0	.5	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	4
10-11	.0	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	3
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDEX	30.8	3.6	.5	.9	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	80	0
TOTAL	94	82	33	7	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	221	1
PCT	42.5	37.6	14.9	3.2	1.4	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1928-1972  
(OVER-ALL) 1857-1972

JUNE

AREA 0077 SARAWAK  
3.7N 111.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA		
N	4.6	2.8	.0	.0	.0	.0	.0	7.4	.0	7.4	3.7	.0	.0	.0	81.5		
NE	2.7	.0	.0	.0	.0	.0	.0	2.7	5.3	5.3	5.3	.0	1.3	.0	80.0		
E	4.3	5.8	6.8	.0	.0	.0	.0	17.9	.0	.0	.0	.0	.0	.0	72.8		
SE	.5	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	99.3		
S	9.2	2.4	.0	.0	.0	.0	.0	11.6	1.2	6.7	.0	.0	.0	.0	80.4		
SW	10.0	1.2	1.4	.0	.0	.0	.0	12.6	2.4	1.2	.0	.0	.0	.0	84.5		
W	7.5	4.0	3.5	.0	.0	.0	.0	15.1	3.5	2.5	.0	.0	1.0	.0	77.9		
NW	7.9	1.2	6.1	.0	.0	.0	.0	15.2	2.4	5.5	.0	.0	.0	.0	76.8		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	92.2		
CALM	2.3	.8	.0	.0	.0	.0	.0	3.1	1.6	2.3	.0	.0	.8	.0	92.2		
TOT PCT	6.3	1.9	1.6	.0	.0	.0	.0	9.8	1.9	2.9	.3	.0	.8	.0	84.4		
TOT OBS:	623																

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA		
00003	8.2	3.8	1.1	.0	.0	.0	.0	13.2	1.6	.5	.5	.0	1.6	.0	82.4		
06009	4.2	1.2	1.8	.0	.0	.0	.0	7.2	2.4	1.2	.0	.0	.0	.0	89.2		
12015	5.1	.0	.6	.0	.0	.0	.0	5.7	1.9	3.8	.0	.0	.8	.0	88.6		
18021	5.8	1.9	2.6	.0	.0	.0	.0	10.3	1.3	5.8	.6	.0	1.9	.0	80.0		
TOT PCT	5.9	1.8	1.5	.0	.0	.0	.0	9.2	1.8	2.7	.3	.0	1.1	.0	85.0		
TOT OBS:	662																

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.3	2.1	.6	.0	.0	.0		4.0	5.7	3.8	.0	2.1	3.1	5.3	2.9	7.3	3.1	
NE	1.1	1.8	.0	.0	.0	.0		2.9	4.2	1.8	.0	2.6	.0	3.0	4.3	3.3	7.5	
E	1.0	2.9	.1	.0	.0	.0		4.0	5.5	5.3	11.4	3.0	5.4	1.2	1.4	3.3	6.3	
SE	2.2	5.5	.4	.0	.0	.0		8.2	5.6	11.0	18.9	10.6	12.3	3.6	14.3	2.5	4.4	
S	2.5	9.2	2.2	.1	.0	.0		14.0	7.4	21.2	18.2	22.4	7.7	4.6	7.1	10.2	13.1	
SW	3.9	13.4	5.8	.9	.0	.0		24.1	8.8	22.2	43.2	21.5	28.8	24.5	20.0	24.2	21.9	
W	3.9	7.9	4.2	.6	.0	.0		16.5	8.1	13.3	5.3	16.9	21.2	21.7	25.7	15.4	11.9	
NW	1.7	3.9	.3	.4	.0	.0		6.3	6.4	3.4	.0	3.9	12.3	12.9	1.4	5.4	5.6	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	20.0							20.0	.0	18.0	3.0	16.9	9.2	23.2	22.9	28.3	26.3	
TOT OBS	303	375	110	16	0	0	804	804	5.9	178	33	142	65	151	35	120	80	
TOT PCT	37.7	46.6	13.7	2.0	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	3.3	.5	.2	.0	.0		4.0	5.7	3.2	2.4	4.8	5.6	
NE	2.5	.4	.0	.0	.0		2.9	4.2	1.5	1.9	3.2	5.0	
E	2.8	1.2	.0	.0	.0		4.0	5.5	6.3	3.7	1.2	4.5	
SE	5.4	2.7	.0	.0	.0		8.2	5.6	12.2	11.1	5.6	3.3	
S	7.2	6.3	.5	.1	.0		14.0	7.4	20.7	17.8	5.1	11.4	
SW	10.3	11.4	2.1	.2	.0		24.1	8.6	25.5	23.8	23.7	23.3	
W	8.7	6.2	1.6	.1	.0		16.5	8.1	12.1	18.2	22.4	14.0	
NW	4.3	1.6	.4	.0	.0		6.3	6.4	2.8	6.3	10.8	5.5	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	20.0						20.0	.0	15.6	14.5	23.1	27.5	
TOT OBS	518	244	39	3	0	804		5.9	211	207	186	200	
TOT PCT	64.4	30.3	4.9	.4	.0		100.0		100.0	100.0	100.0	100.0	

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
0000	15.6	17.1	46.0	18.5	2.8	.0	.0	6.8	100.0	211
0600	14.5	14.5	35.6	14.0	1.4	.0	.0	6.4	100.0	207
1200	23.1	21.0	44.1	9.1	2.7	.0	.0	5.2	100.0	186
1800	27.5	18.5	40.5	12.5	1.0	.0	.0	5.0	100.0	200
TOT	161	142	375	110	16	0	0	5.9		804
PCT	20.0	17.7	46.6	13.7	2.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.0	1.0	1.2	1.5		5.2
NE	.5	1.3	.7	.7		4.5
E	1.2	.6	2.7	.8		5.2
SE	1.1	1.6	3.6	.6		4.9
S	.6	4.1	5.2	3.0		5.4
SW	3.2	3.3	9.4	4.1		5.5
W	4.1	3.2	5.8	4.3		5.1
NW	1.5	1.2	2.0	.8		4.4
VAR	.0	.0	.0	.0		.0
CALM	5.2	6.1	8.4	2.6		4.4
TOT OBS	63	77	134	70	344	5.0
TOT PCT	18.3	22.4	39.0	20.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	5500	8000+	4H <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.7	.7	.2	.3	.0	.0	.0	2.9	
.0	.0	.0	.1	.1	.3	.0	.0	.0	.0	2.7	
.3	.0	.0	.0	.7	.6	.0	.0	.0	.0	3.6	
.0	.0	.0	.0	.5	.7	.0	.0	.0	.0	5.7	
.0	.0	.0	.3	.5	.7	1.7	.0	.0	.0	9.5	
.3	.0	.0	.7	3.6	1.3	.3	.0	.0	.1	15.9	
.3	.0	.0	2.0	1.9	.2	.3	.0	.3	.5	11.9	
.0	.0	.0	.4	.5	.1	.0	.0	.0	.0	4.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.6	2.0	.6	.9	.0	.3	17.7	
.3	0	0	16	36	16	12	1	2	3	255	344
.9	.0	.0	4.7	10.5	4.7	3.5	.3	.6	.9	74.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NM) = OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
= OR >5000	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
= OR >3500	3.7	5.2	5.2	5.2	5.2	5.2	5.2	5.2
= OR >2000	8.4	10.2	10.2	10.2	10.2	10.5	10.5	10.5
= OR >1000	18.0	19.1	19.6	19.6	19.6	19.9	19.9	19.9
= OR >600	18.6	22.5	23.3	23.3	23.6	24.1	24.1	24.1
= OR >300	18.6	22.5	23.3	23.3	23.6	24.1	24.1	24.1
= OR >150	18.6	22.5	23.3	23.3	23.6	24.1	24.1	24.1
= OR >0	19.1	23.0	24.1	24.1	24.3	24.9	24.9	24.9
TOTAL	73	88	92	92	93	95	95	95

TOTAL NUMBER OF OBS: 382

PCT FREQ NH <5/8: 75.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
8.3	15.4	20.6	18.3	13.0	6.7	4.9	6.3	7.8	447

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.2	.0	.3	.0	.0	.0	.0	.0	.0	.0	.5	.5
	TOT %	.2	.0	.3	.0	.0	.0	.0	.0	.0	.0	.5	.5
1/2<1	PCP	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	.2
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2
	TOT %	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	.3
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
2<5	PCP	.1	.0	.0	.0	.1	.4	.6	.6	.0	.0	1.3	1.3
	NO PCP	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3	.3
	TOT %	.1	.0	.0	.0	.1	.7	.6	.6	.0	.0	1.6	1.6
5<10	PCP	.2	.1	.1	.0	.6	2.1	1.1	.4	.0	.5	5.1	5.1
	NO PCP	.0	.9	.8	3.4	3.1	3.7	2.6	1.6	.0	7.7	24.4	24.4
	TOT %	.2	1.0	.9	3.4	3.7	5.8	3.7	2.0	.0	8.2	29.5	29.5
10+	PCP	.0	.0	.0	.0	.8	.4	.6	.5	.0	.2	3.2	3.2
	NO PCP	9.3	2.0	2.8	5.0	8.3	16.3	10.9	4.0	.0	12.0	64.7	64.7
	TOT %	9.3	2.0	3.4	5.1	9.1	16.7	11.6	4.5	.0	12.2	67.9	67.9
TOT OBS													
TOT PCT													
		4.3	3.0	4.7	8.5	13.1	23.3	16.0	6.6	.0	20.3	100.0	623

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.5
	11-21	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.7
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	.3
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
2<5	0-3	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.2	.2
	4-10	.0	.0	.0	.2	.0	.4	.2	.0	.0	.0	.8	.8
	11-21	.1	.0	.0	.0	.0	.4	.3	.0	.0	.0	.5	.5
	22+	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.3	.3
	TOT %	.1	.0	.0	.2	.1	.7	.6	.0	.0	.0	1.7	1.7
5<10	0-3	.2	.3	.4	1.8	1.0	.8	.2	.2	.0	8.0	12.6	12.6
	4-10	.2	.7	.5	1.6	1.9	2.6	1.4	1.2	.0	.0	9.8	9.8
	11-21	.4	.0	.0	.0	.9	1.9	1.6	.1	.0	.0	4.8	4.8
	22+	.0	.0	.0	.0	.0	.6	.5	.5	.0	.0	1.6	1.6
	TOT %	.7	1.0	.8	3.3	3.7	5.7	3.7	2.0	.0	8.0	28.9	28.9
10+	0-3	.7	.8	.7	.5	1.2	2.3	3.2	1.5	.0	12.8	23.7	23.7
	4-10	2.4	1.2	2.5	3.9	6.3	10.1	6.0	2.7	.0	.0	35.3	35.3
	11-21	.1	.0	.0	.5	1.6	4.2	2.1	.2	.0	.0	8.7	8.7
	22+	.0	.0	.0	.0	.1	.3	.3	.0	.0	.0	.6	.6
	TOT %	3.2	2.0	3.3	4.9	9.4	16.9	11.5	4.4	.0	12.8	68.3	68.3
TOT OBS													
TOT PCT													
		4.2	2.9	4.6	8.5	13.3	23.3	15.8	6.4	.0	20.9	100.0	641

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	200 569	300 999	400 1999	500 3499	600 4999	700 6499	800 7099	*000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	6.1	11.3	4.3	3.5	.0	.0	1.7	27.0	73.0	115
06009	.0	.0	.0	4.3	6.9	6.0	3.4	.0	.0	.9	21.6	78.4	116
12015	.0	.0	.0	2.1	6.3	3.2	4.2	.0	.0	1.1	16.8	83.2	95
18021	3.1	.0	.0	2.0	9.2	5.1	1.0	1.0	2.0	.0	23.5	76.5	98
TOT	3	0	0	16	36	20	13	1	2	4	95	329	424
PCT	.7	.0	.0	3.8	8.5	4.7	3.1	.2	.5	.9	22.4	77.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.5	.0	.0	2.7	27.8	69.0	107
06009	.6	.6	.0	.0	22.9	75.9	170
12015	.6	.0	.0	2.5	30.0	68.9	100
18021	.6	.6	.6	1.2	28.2	68.7	103
TOT	0	2	1	11	105	477	600
PCT	.0	.3	.1	1.0	27.2	70.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET) NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.9	7.5	21.5	71.0	107
06009	.0	1.0	4.9	19.4	75.7	103
12015	.0	1.2	4.8	14.3	81.0	84
18021	3.4	4.5	6.8	20.5	72.7	88
TOT	3	7	23	73	286	382
PCT	.8	1.8	6.0	19.1	74.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT REQ
90/96	.0	.0	.0	.2	.9	.5	.5	.0	9	2.1
85/89	.0	.0	.0	.0	2.1	8.1	7.2	1.4	81	18.8
80/84	.0	.0	.0	.0	1.4	21.8	36.0	7.9	289	67.1
75/79	.0	.0	.0	.0	.0	.2	4.4	7.0	50	11.6
70/74	.0	.0	.0	.0	.0	.0	.2	.2	2	.5
TOTAL	0	0	0	1	19	132	208	71	431	100.0
PCT	.0	.0	.0	.2	4.4	30.6	48.3	16.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90	.0	.2	.2	.3	.3	.3	.1	.0	.0	.5
85	1.3	.5	1.2	1.0	2.0	4.8	3.0	1.3	.0	3.7
80	3.2	1.5	3.2	2.8	9.3	18.4	10.1	4.9	.0	13.5
75	.5	.2	.5	1.0	2.8	2.9	2.3	.5	.0	.9
70	.0	.0	.0	.0	.2	.1	.1	.0	.0	.0
TOT	5.0	2.5	5.0	5.3	14.8	26.5	15.6	6.7	.0	18.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	93	90	87	82	76	74	73	82.0	218
06009	94	93	90	85	79	77	73	84.5	209
12015	90	88	86	83	79	77	77	82.8	194
18021	88	86	85	82	77	76	73	81.9	210
TOT	94	90	88	83	77	75	73	82.8	831

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	.2	.9	.5	.5	.0	84	128
06009	.0	.0	.0	13.4	36.6	40.2	6.9	.9	79	112
12015	.0	.0	.0	3.5	32.2	47.8	16.5	.9	82	119
18021	.0	.0	.0	.0	29.6	53.0	17.4	.9	83	115
TOT	0	1	20	143	223	83	82	470		



PERIOD: (PRIMARY) 1928-1972  
(OVER-ALL) 1857-1972

JUNE

AREA 0007 SARAWAK  
3.7N 111.8E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	>92	TOT	N FOG	40 FOG
9/10	.0	.0	.0	.2	.3	.7	4	.0	.7
7/8	.0	.0	.0	.8	.5	.5	11	.0	1.8
6	.0	.0	.0	1.0	.3	.0	8	.0	1.3
5	.0	.0	.3	1.0	.8	.0	13	.0	2.1
4	.0	.0	.7	1.8	.8	.0	20	.0	3.3
3	.0	.0	1.8	1.5	.7	.0	24	.0	3.9
2	.0	.0	2.0	1.6	.3	.0	24	.0	3.9
1	.0	.3	3.4	2.6	.0	.0	39	.0	6.4
0	.0	1.8	7.0	3.9	.2	.0	79	.0	12.9
-1	.0	2.4	9.6	1.3	.2	.0	95	.0	15.5
-2	.0	2.3	12.6	1.4	.0	.0	101	.0	16.5
-3	.2	1.3	8.3	.8	.0	.0	65	.0	10.6
-4	.2	3.1	5.5	.0	.0	.0	54	.0	8.8
-5	.3	1.6	3.3	.3	.0	.0	34	.2	5.4
-6	.3	2.0	.5	.0	.0	.0	17	.0	2.8
-7/-8	.5	2.1	.7	.0	.0	.0	20	.0	3.3
-9/-10	.0	.5	.0	.0	.0	.0	3	.0	.5
-11/-13	.2	.2	.0	.0	.0	.0	2	.0	.3
TOTAL	10		341		25		613	1	612
PCT	1.6	17.6	55.6	20.4	4.1	.7	100.0	.2	99.8

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

MGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
C1	.0	1.8	.0	.0	.0	.0	1.6	.0	1.8	.0	.0	.0	.0	1.6
1-2	.0	2.2	.0	.0	.0	.0	2.2	1.0	.8	.0	.0	.0	.0	1.8
3-4	.0	.0	.8	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.8	.0	.0	.0	.8	.0	.0	.3	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.8	1.2	.0	.0	.0	5.0	1.0	2.4	.0	.0	.0	.0	3.4

MGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
C1	1.6	.8	.0	.0	.0	.0	2.4	.2	.2	.0	.0	.0	.0	.4
1-2	.8	.0	.0	.0	.0	.0	.8	.8	1.8	.0	.0	.0	.0	2.6
3-4	.0	1.8	.0	.0	.0	.0	1.8	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.2	2.4	.0	.0	.0	.0	4.6	1.0	2.0	.0	.0	.0	.0	3.0

PERIOD: (OVER-ALL) 1963-1972

JUNE

AREA 0007 SARAWAK  
3.7N 111.8E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	1.4	.0	.0	.0	.0	2.0	.8	.2	.0	.0	.0	.0	1.0
1-2	.0	8.8	1.6	.0	.0	.0	10.4	.2	13.2	4.2	.0	.0	.0	17.6
3-4	.0	.6	1.6	.0	.0	.0	2.2	.0	3.0	4.0	.0	.0	.0	7.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.8
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	10.8	3.2	.0	.0	.0	14.6	1.0	16.4	9.0	.0	.0	.0	26.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	2.4	.3	.0	.0	.0	.0	3.0	1.6	.0	.0	.0	.0	.0	1.6	
1-2	1.4	7.2	.6	.0	.0	.0	9.2	.9	1.2	.0	.0	.0	.0	2.0	
3-4	.0	1.2	2.4	.0	.0	.0	3.6	.0	.0	1.0	.0	.0	.0	1.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.8	9.0	3.0	.0	.0	.0	15.8	2.4	1.2	1.2	.0	.0	.0	4.8	77.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	31.8	6.2	.0	.0	.0	.0	38.0	
1-2	4.7	34.1	6.2	.0	.0	.0	45.0	
3-4	.0	6.2	9.3	.0	.0	.0	15.5	
5-6	.0	.0	1.6	.0	.0	.0	1.6	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	36.4	46.5	17.1	.0	.0	.0	100.0	129

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
4-6	10.9	27.3	12.4	2.9	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	148	2
6-7	.0	5.3	6.9	4.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	47	3
8-9	.0	.0	.4	1.1	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	5
10-11	.0	.0	.0	.4	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	7
12-13	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	3
13-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	21.1	2.2	1.1	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	69	0
TOTAL	88	96	59	25	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	275	2
PCT	32.0	34.9	21.5	9.1	1.8	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1928-1972  
(OVER-ALL) 1857-1972

JULY

AREA 0007 SARAWAK  
3.6N 111.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WNO	DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
		RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N		3.4	2.6	.0	.0	.0	.0	.0	6.0	6.0	14.5	.0	.0	.0	.0	76.9
NE		13.6	.8	.0	.0	.0	.0	.0	14.4	.0	.8	.0	.0	.0	.0	84.7
E		7.0	.0	.0	.0	.0	.0	.0	7.0	.0	.0	.0	.0	.0	.0	93.0
SE		3.9	.0	5.2	.0	.0	.0	.0	9.1	5.2	.0	.0	.0	.0	.0	85.7
S		1.4	1.1	1.4	.0	.0	.0	.0	3.9	1.4	2.6	.0	.0	1.4	.0	91.8
SW		5.6	2.4	.0	.0	.0	.0	.0	7.5	3.0	3.5	.0	.0	.0	.0	86.0
W		3.4	5.9	1.6	.0	.0	.0	.0	12.9	3.5	6.3	.0	.0	.0	.0	77.2
NW		3.4	3.4	.8	.0	.0	.0	.0	7.6	5.1	10.2	.0	.0	.0	.0	77.1
VAR		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM		.0	2.7	.0	.0	.0	.0	.0	2.7	.0	4.4	.0	.0	.9	.0	92.0
TOT PCT		4.0	2.7	.8	.0	.0	.0	.0	7.5	2.5	4.3	.0	.0	.9	.0	85.5
TOT OBS:		602														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FG WD PCPN	FG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST	NO SIG WEA
0000	4.1	4.1	.6	.0	.0	.0	.0	8.8	4.7	2.4	.0	.0	.6	.0		84.7
0600	3.1	3.1	.6	.0	.0	.0	.0	6.9	1.3	.0	.0	.0	.0	.0		91.8
1200	3.6	.6	1.2	.0	.0	.0	.0	5.5	1.2	6.7	.0	.0	.0	.0		86.7
1800	4.3	2.2	.7	.0	.0	.0	.0	7.2	2.2	9.4	.0	.0	.7	.0		80.4
TOT PCT TOT OBS	3.8	2.5	.8	.0	.0	.0	.0	7.1	2.4	4.4	.0	.0	.9	.0		86.1

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.9	2.0	.7	.0	.0	.0		4.5	5.7		4.1	2.5	4.7	4.0	6.0	5.2	4.5	3.5
NE	1.4	2.8	.1	.0	.0	.0		4.4	5.0		3.1	5.0	2.9	2.4	8.3	4.2	4.0	4.2
E	.7	2.1	.0	.0	.0	.0		2.8	5.1		3.0	3.1	3.8	1.6	1.9	4.2	2.7	2.8
SE	1.5	3.5	.7	.0	.0	.0		5.8	6.2		11.0	8.1	4.7	3.2	2.5	2.1	3.7	9.5
S	2.6	8.7	1.6	.1	.0	.0		13.1	6.4		17.8	11.3	19.2	14.5	9.2	6.3	7.7	10.9
SW	5.4	19.0	4.9	1.0	.0	.0		30.4	7.9		27.6	33.1	34.9	35.5	25.9	29.7	28.5	33.8
W	2.5	10.6	3.4	.7	.0	.0		17.2	9.8		12.5	16.9	11.2	17.7	20.4	29.2	21.0	19.0
NW	1.3	2.4	.9	.0	.0	.0		4.6	6.7		1.8	.0	5.0	4.8	9.0	8.9	4.2	.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	17.2							17.2	.0		19.1	20.0	13.7	16.1	16.4	10.4	23.8	15.5
TOT OBS	261	386	94	14	0	0		755	6.1		152	40	139	62	142	48	101	71
TOT PCT	34.6	51.1	12.5	1.9	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00					03	06	12	18
N	2.9	1.5	.1	.0	.0		4.5	5.7	3.6	4.5	5.8	4.1	
NE	3.3	1.1	.0	.0	.0		4.4	5.0	3.5	2.7	7.2	4.1	
E	1.5	1.4	.0	.0	.0		2.8	6.1	3.0	3.1	2.5	2.6	
SE	3.7	1.9	.1	.0	.0		5.8	6.1	10.4	4.2	2.4	6.1	
S	7.6	4.9	.6	.0	.0		13.1	6.9	16.4	17.8	8.4	9.0	
SW	16.2	11.5	2.4	.9	.0		30.4	7.9	28.8	33.1	26.8	30.7	
W	7.1	7.9	2.1	.1	.0		17.2	8.6	13.4	13.2	22.6	20.2	
NW	2.5	1.9	.2	.0	.0		4.6	6.7	1.4	5.0	8.9	2.8	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	17.2						17.2	.0	19.3	14.4	15.3	20.3	
TOT OBS	469	242	41	9	.0	755		6.1	192	201	190	172	
TOT PCT	42.1	32.1	5.4	.4	.0	100.0			100.0	100.0	100.0	100.0	

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
0000	19.3	17.7	46.9	15.1	1.0	.0	.0	6.0	100.0	192
0600	14.4	16.4	50.2	15.9	3.0	.0	.0	6.9	100.0	201
1200	15.3	20.5	54.2	7.4	2.6	.0	.0	5.8	100.0	190
1800	20.3	14.5	53.5	11.0	.6	.0	.0	5.7	100.0	172
TOT	130	131	386	94	14	0	0	6.1		755
PCT	17.2	17.4	51.1	12.5	1.9	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.2	1.7	.9	.9	4.2	.0
NE	.7	1.1	2.0	.7	5.0	.0
E	.5	.9	2.3	.5	5.0	.0
SE	.2	.9	3.1	1.7	6.1	.0
S	2.1	2.5	6.0	.6	4.7	.0
SW	3.7	4.7	9.7	10.5	5.7	.6
W	2.3	2.7	6.8	6.1	5.7	1.6
NW	.3	.8	1.2	1.1	5.5	.0
VAR	.0	.0	.0	.0	.0	.0
CALM	5.3	6.2	6.2	1.9	4.1	.0
TOT OBS	53	69	123	77	322	5.2
TOT PCT	16.5	21.4	38.2	23.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	294	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.0	.9	.3	.0	.0	.0	.0	3.5	
NE	.0	.0	.0	.3	1.0	.2	.0	.0	.0	.0	3.0	
E	.0	.0	.0	.0	.8	.5	.0	.0	.0	.0	3.0	
SE	.0	.0	.6	.0	.5	.7	.0	.0	.0	.3	3.7	
S	.0	.0	.2	.9	1.1	1.6	.0	.0	.0	.3	7.1	
SW	.6	.3	.2	1.6	3.6	1.9	1.6	1.2	.0	.3	17.3	
W	1.6	.0	.2	1.2	2.6	1.6	.0	.3	.0	.3	10.1	
NW	.0	.0	.3	.0	.3	.2	.0	.0	.0	.0	2.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.3	1.6	.6	.0	.0	.0	.0	17.1	
TOT OBS	7	1	5	14	40	24	5	4	0	4	217	322
TOT PCT	2.2	.3	1.6	4.3	12.4	7.5	1.6	1.6	.0	1.2	67.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	OR >10	OR >5	OR >2	VSBY (NM) OR >1	OR >1/2	OR >1/4	OR >5000	OR >0
OR >6500	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
OR >5000	2.9	3.8	3.8	3.8	3.8	3.8	3.8	3.8
OR >3500	5.0	5.8	5.8	5.8	5.8	5.8	5.8	5.8
OR >2000	11.4	12.8	13.1	13.4	13.4	13.4	13.4	13.4
OR >1000	21.0	24.2	25.1	25.4	25.4	25.4	25.4	25.4
OR >600	23.6	28.3	29.2	29.4	29.4	29.4	29.4	29.4
OR >300	23.9	29.4	30.6	30.9	30.9	30.9	30.9	30.9
OR >150	23.9	29.7	30.9	31.2	31.2	31.2	31.2	31.2
OR >0	23.9	30.0	32.1	32.9	32.9	32.9	32.9	32.9
TOTAL	62	103	110	113	113	113	114	114

TOTAL NUMBER OF OBS: 343

PCT FREQ NH <5/8: 66.8

TABLE 8

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
10.6	14.1	18.1	13.9	9.3	7.1	9.3	8.3	7.6	1.8	397

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
1<2	PCP	.0	.0	.0	.0	.0	.4	.4	.0	.0	.0	.5	.5
	NO PCP	.1	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
	TOT %	.1	.0	.0	.0	.0	.2	.4	.1	.0	.0	.5	.5
2<5	PCP	.0	.0	.0	.0	.0	.2	.4	.2	.0	.0	.8	.8
	NO PCP	.2	.0	.0	.3	.2	.5	.1	.0	.0	.2	1.3	1.3
	TOT %	.2	.0	.0	.3	.2	.7	.5	.2	.0	.2	2.3	2.3
5<10	PCP	.2	.3	.1	.6	.0	1.1	1.1	.0	.0	.3	3.8	3.8
	NO PCP	1.1	1.3	.8	1.5	3.4	8.1	5.4	2.0	.0	6.8	30.6	30.6
	TOT %	1.2	2.0	.9	2.1	3.4	9.2	6.5	2.0	.0	7.1	34.4	34.4
10+	PCP	.1	.2	.2	.0	.3	.7	.4	.2	.0	.2	2.2	2.2
	NO PCP	3.2	2.7	2.5	4.3	7.6	16.4	9.9	2.5	.0	11.3	60.1	60.1
	TOT %	3.3	2.9	2.7	4.0	7.9	17.1	10.3	2.7	.0	11.5	62.3	62.3
TOT OBS													
TOT PCT		4.9	4.9	3.6	6.4	11.7	27.2	17.7	4.9	.0	18.8	100.0	602

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.2
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.2	.2
	11-21	.1	.0	.0	.0	.0	.2	.3	.0	.0	.0	.6	.6
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.0	.0	.0	.0	.2	.4	.1	.0	.0	.8	.8
2<5	0-3	.2	.0	.0	.0	.0	.3	.1	.0	.0	.2	.8	.8
	4-10	.0	.0	.0	.3	.2	.5	.2	.2	.0	.0	1.3	1.3
	11-21	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.3	.3
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.2	.0	.0	.3	.2	.9	.5	.2	.0	.2	2.4	2.4
5<10	0-3	.2	.7	.3	.8	.9	2.5	1.0	.6	.0	6.8	13.7	13.7
	4-10	1.0	1.2	.6	1.3	2.3	4.2	3.2	.8	.0	.0	14.4	14.4
	11-21	.2	.0	.0	.2	.2	1.3	1.1	.5	.0	.0	3.5	3.5
	22+	.0	.0	.0	.0	.0	.9	.9	.0	.0	.0	1.7	1.7
	TOT %	1.3	1.9	.9	2.0	3.4	9.0	6.2	1.9	.0	6.8	33.3	33.3
10+	0-3	1.3	.8	.6	.6	1.7	1.6	1.4	.8	.0	11.1	19.8	19.8
	4-10	1.3	2.2	2.0	2.6	5.8	12.1	7.8	1.3	.0	.0	34.9	34.9
	11-21	.6	.2	.0	.7	1.1	3.4	1.9	.6	.0	.0	8.4	8.4
	22+	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3	.3
	TOT %	3.2	3.1	2.5	3.9	8.5	17.4	10.9	2.7	.0	11.1	63.2	63.2
TOT OBS													
TOT PCT		4.8	5.0	3.4	6.2	12.2	27.6	18.1	4.8	.0	18.0	100.0	633

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PERIOD: (PRIMARY) 1928-1972  
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000	150	300	450	1000	2000	3500	5000	6500	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	1.9	.0	2.4	1.9	15.4	6.7	2.9	2.9	.0	1.0	35.6	64.4	104
06009	2.7	.0	.9	7.2	16.2	9.0	1.8	1.8	.0	.0	39.6	60.4	111
12015	1.2	.0	1.2	2.4	4.7	5.9	1.2	3.5	.0	2.4	22.4	77.6	85
18021	1.3	1.3	.0	2.6	3.9	5.3	1.3	1.3	.0	1.3	18.4	81.6	76
TOT	7	1	5	14	41	26	7	9	0	4	114	292	376
PCT	1.9	.3	1.3	3.7	10.9	6.9	1.9	2.4	.0	1.1	30.3	69.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.6	.0	.6	28.8	70.1	177
06009	.6	.0	.6	3.0	26.6	69.2	169
12015	.6	.0	1.2	2.4	39.4	56.5	170
18021	.0	.0	2.0	3.4	34.0	60.5	147
TOT	2	1	4	15	213	426	663
PCT	.3	.2	.9	2.3	32.1	64.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	2.1	5.3	7.4	31.6	61.1	95
06009	2.9	3.9	13.7	30.4	55.9	102
12015	1.3	2.6	10.4	16.9	72.7	77
18021	1.4	2.9	7.2	13.0	79.7	69
TOT	7	13	34	83	226	343
PCT	2.0	3.8	9.9	24.2	65.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	1.2	.7	.0	.0	8	1.9
85/83	.0	.0	.0	.0	2.4	12.5	3.6	1.4	83	20.0
80/84	.0	.0	.0	.2	1.9	26.0	32.8	5.5	276	68.5
75/79	.0	.0	.0	.0	.0	.5	4.1	6.5	15	10.8
70/74	.0	.0	.0	.0	.0	.0	.0	.7	3	.7
TOTAL	0	0	0	1	29	165	168	56	415	100.0
PCT	.0	.0	.0	.2	5.5	39.8	40.5	14.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.2	.0	.2	.2	.0	.2	.2	.0	.0	.7
85/83	1.2	.8	.5	1.6	2.9	3.6	2.8	1.3	.0	3.9
80/84	3.9	3.8	2.7	3.0	6.7	18.6	14.7	3.1	.0	10.1
75/79	.8	.1	.0	1.4	1.4	3.0	1.4	.8	.0	1.9
70/74	.2	.0	.1	.4	.0	.0	.0	.1	.0	.0
TOTAL	6.3	4.7	3.6	6.7	10.4	27.3	19.2	5.2	.0	16.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	92	90	88	83	76	74	73	82.2	201
06009	94	91	90	84	78	77	74	84.2	204
12015	90	87	86	83	79	77	73	82.8	198
18021	86	85	84	82	77	75	73	81.6	177
TOT	94	90	88	83	77	75	73	82.8	780

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.8	3.9	33.1	41.7	20.5	82	127		
06009	.0	.0	11.7	56.8	22.5	9.0	78	111		
12015	.0	.0	2.7	39.1	46.4	11.8	82	110		
18021	.0	.0	2.1	30.5	46.4	18.9	83	95		
TOT	0	1	23	177	175	67	81	443		

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TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TEMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	% FOG	% FOG
11/13	.0	.0	.0	.0	.2	1	.0	.2
9/10	.0	.0	.0	.2	.5	4	.0	.7
7/8	.0	.0	.2	.3	.2	4	.0	.7
6	.0	.0	.0	.3	.5	5	.0	.9
5	.0	.0	.0	1.4	.9	16	.0	2.7
4	.0	.0	1.5	1.7	.5	22	.0	3.6
3	.0	.0	1.5	1.7	1.2	26	.0	4.4
2	.0	.0	5.5	3.6	.0	53	.0	9.0
1	.0	.9	3.8	4.1	.0	51	.0	8.7
0	.0	.9	6.7	2.7	.2	61	.0	10.4
-1	.0	1.0	9.9	1.2	.0	71	.0	12.1
-2	.0	.9	13.7	.7	.0	89	.0	15.2
-3	.0	2.0	8.9	.0	.0	64	.0	10.9
-4	.0	3.4	4.6	.0	.0	47	.0	8.0
-5	.2	1.5	1.2	.2	.0	18	.0	3.1
-6	.7	2.0	.3	.0	.0	19	.0	3.2
-7/-8	.9	2.2	.3	.0	.0	20	.0	3.4
-9/-10	.3	.9	.2	.0	.0	4	.0	1.4
-11/-13	.9	.3	.0	.0	.0	7	.0	1.2
TOTAL	17	94	342	109	24	586	0	586
PCT	2.9	10.0	58.4	18.6	4.1	100.0		100.0

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
41	3.5	.0	.6	.0	.0	.0	4.1	.9	.6	.0	.0	.0	.0	1.6
1-2	.6	1.6	1.7	.0	.0	.0	4.0	.6	1.6	.0	.0	.0	.0	2.2
3-4	.0	.6	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0	.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	4.1	2.2	2.4	.0	.0	.0	8.7	1.6	2.8	.0	.0	.0	.0	4.4

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
41	1.3	.5	.0	.0	.0	.0	1.7	.8	.3	.0	.0	.0	.0	1.1
1-2	.0	1.1	.0	.0	.0	.0	1.1	.0	4.3	.0	.0	.0	.0	4.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	1.6	.0	.0	.0	.0	2.8	.8	4.6	.6	.0	.0	.0	6.0

PERIOD: (OVER-ALL) 1963-1972

JULY

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3.8M 111.8E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	2.2	1.6	.0	.0	.0	.0	3.8	1.7	3.3	.0	.0	.0	.0	5.1
1-2	.5	4.4	.5	.0	.0	.0	5.4	.8	8.7	3.5	.0	.0	.0	13.0
3-4	.0	2.4	1.1	.0	.0	.0	3.5	.4	4.9	2.7	.0	.0	.0	8.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.2	1.4	.8	.0	.0	2.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.0	.0	.6
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.0	.0	.0	.6
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.7	8.4	1.6	.0	.0	.0	12.7	3.2	17.1	8.2	1.3	.0	.0	29.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	2.1	1.3	.0	.0	.0	.0	3.3	.8	.6	.0	.0	.0	.0	.0	1.4
1-2	1.1	7.1	.9	.0	.0	.0	9.2	.2	1.6	.3	.0	.0	.0	.0	2.1
3-4	.0	2.2	1.9	.0	.0	.0	4.1	.0	.0	.6	.0	.0	.0	.0	.6
5-6	.0	.5	.5	.0	.0	.0	.7	.0	.0	.6	.0	.0	.0	.0	.6
7	.0	.0	.6	.6	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.6	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	3.2	11.1	4.0	1.3	.0	.0	19.5	.8	2.2	1.6	.0	.0	.0	4.7	88.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	26.5	8.0	.6	.0	.0	.0	35.2	
1-2	3.7	29.6	6.8	.0	.0	.0	40.1	
3-4	.6	9.9	6.8	.0	.0	.0	17.3	
5-6	.0	1.2	2.5	.0	.0	.0	4.3	
7	.0	.0	.6	1.2	.0	.0	1.9	
8-9	.0	.0	.0	.6	.0	.0	.6	
10-11	.0	.0	.6	.0	.0	.0	.6	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	30.9	48.8	17.9	2.5	.0	.0	100.0	162

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	13.5	28.4	16.3	3.9	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	179	2
6-7	.0	1.4	5.0	1.8	1.1	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	27	4
8-9	.0	.7	.7	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	4
10-11	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	11
12-13	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	11
>13	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	8
INDEX	19.5	2.3	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	65	0
TOTAL	93	93	65	18	8	1	0	3	1	0	0	0	0	0	0	0	0	0	0	282	2
PCT	33.0	33.0	23.0	6.4	2.8	.4	.0	1.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	



PERIOD: (PRIMARY) 1930-1972  
(OVER-ALL) 1879-1972

AUGUST

AREA 0007 SARAWAK  
3.7N 111.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	6.7	7.8	.0	.0	.0	.0	.0	14.4	11.1	3.3	.0	.0	.0	.0	71.1
NE	7.8	7.8	.0	.0	.0	.0	.0	15.6	1.6	7.8	.0	.0	.0	.0	75.0
E	5.4	.0	.0	.0	.0	.0	.0	5.4	5.4	.0	.0	.0	.0	.0	89.2
SE	6.5	.0	.0	.0	.0	.0	.0	6.5	5.8	2.9	.0	.0	.0	.0	84.8
S	2.9	2.1	1.1	.0	.0	.0	.0	2.9	4.3	.0	.0	.0	2.1	.0	86.4
SW	3.8	2.2	.9	.0	.0	.0	.0	6.9	.6	3.9	.0	.0	.6	.0	87.9
W	3.8	5.2	.5	.0	.0	.0	.0	9.4	4.7	3.5	.0	.0	1.9	.0	80.5
NW	3.8	9.0	.0	.0	.0	.0	.0	12.8	.8	6.0	.0	.0	.0	.0	80.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.4	.0	.0	.0	.0	.0	.0	1.4	.0	7.0	1.4	.0	4.2	.0	35.9
TOT PCT	3.8	3.1	.5	.0	.0	.0	.0	7.4	2.3	4.3	.2	.0	1.4	.0	84.3
TOT OBS:	555														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OBS TIME	PCPN PAST HOUR	THDR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG SNOW	DUST SNOW	NO SIG WEA
0000	6.9	3.5	.6	.0	.0	.0	.0	11.0	2.3	1.2	.6	.0	.6	.0	.0	84.4
0600	3.2	2.4	.8	.0	.0	.0	.0	6.4	3.2	.0	.0	.0	.8	.0	.0	89.6
1200	1.2	2.5	.6	.0	.0	.0	.0	4.3	1.2	5.5	.0	.0	1.8	.0	.0	87.1
1800	2.3	3.0	.0	.0	.0	.0	.0	5.3	2.3	10.5	.0	.0	2.3	.0	.0	79.7
TOT PCT TOT OBS	3.5	2.9	.5	.0	.0	.0	.0	6.9	2.2	4.2	.2	.0	1.3	.0	.0	85.2

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.9	2.2	.9	.0	.0	.0	3.6	6.7	3.2	1.7	3.7	.0	4.2	2.4	5.1	2.9		
NE	.8	1.7	.3	.0	.0	.0	2.8	5.8	.6	1.7	2.6	1.6	2.8	4.8	5.9	2.9		
E	1.1	1.9	.2	.0	.0	.0	3.1	4.7	6.5	.0	4.3	1.6	1.1	.0	.8	5.9		
SE	1.7	4.1	.3	.0	.0	.0	6.2	6.0	8.7	8.6	8.5	3.2	5.4	4.8	1.9	5.9		
S	3.7	10.8	2.0	.0	.0	.0	16.4	6.7	19.7	30.2	19.9	13.7	14.4	7.1	11.0	13.2		
SW	3.0	18.6	7.8	.5	.0	.0	29.9	8.8	22.1	30.2	29.1	29.0	28.8	16.7	30.5	33.8		
W	3.3	12.6	4.5	.0	.0	.0	20.3	7.7	13.7	10.3	20.3	42.7	21.7	25.7	20.1	23.5		
NW	1.7	3.5	.5	.0	.0	.0	5.7	5.7	3.2	13.8	4.3	4.8	10.5	9.5	3.4	.0		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	12.0						12.0	.0	12.3	3.6	7.3	3.2	11.1	19.0	21.2	11.0		
TOT OBS	187	368	106	3	0	0	664	6.6	195	29	123	31	193	21	118	94		
TOT PCT	28.2	55.4	16.0	.5	.0	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	1.9	1.6	.1	.0	.0		3.6	6.7	3.0	2.9	4.0	4.6	
NE	2.0	.8	.0	.0	.0		2.8	5.8	.8	2.4	3.0	5.3	
E	2.8	.3	.0	.0	.0		3.1	4.7	5.4	3.7	1.0	2.0	
SE	3.6	2.6	.0	.0	.0		6.2	6.0	8.7	7.5	5.3	2.8	
S	8.4	7.9	.2	.0	.0		16.4	6.7	21.3	18.7	13.5	11.5	
SW	11.4	16.3	2.1	.0	.0		29.9	8.8	31.8	29.1	27.3	31.3	
W	10.1	8.8	1.5	.0	.0		20.3	7.7	13.2	24.8	23.4	20.9	
NW	3.8	1.9	.6	.0	.0		5.7	5.7	4.9	4.4	10.3	2.6	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	12.0						12.0	.0	10.9	6.5	12.1	19.1	
TOT OBS	371	267	28	0	0	664		6.6	184	154	174	192	
TOT PCT	55.9	40.2	3.9	.0	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1930-1972  
(OVER-ALL) 1879-1972

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GHT)

HOURL	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	10.9	13.6	59.8	14.7	1.1	.0	.0	.0	6.8	100.0	184
06009	6.5	17.5	57.1	18.8	.0	.0	.0	.0	7.1	100.0	154
12015	12.1	17.2	54.0	16.7	.0	.0	.0	.0	6.4	100.0	174
18021	19.1	16.4	50.0	13.8	.7	.0	.0	.0	5.9	100.0	152
TOT	80	107	368	106	3	0	0	0	6.6		664
PCT	12.0	16.1	55.4	16.0	.5	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL CLOUD OBS	MEAN CLOUD COVER
N	.6	.5	1.9	1.0		5.4
NE	.4	1.0	.4	1.1		5.5
E	.7	.5	.9	1.0		5.3
SE	.4	.6	2.7	1.1		6.0
S	2.8	1.4	9.5	4.1		5.6
SW	4.7	5.0	11.0	8.5		5.3
W	1.9	4.2	8.7	4.6		5.4
NW	1.0	1.6	1.9	.9		4.6
VAR	.0	.0	.0	.0		.0
CALM	3.2	3.0	4.7	2.5		4.6
TOT OBS	63	71	168	99	401	5.3
TOT PCT	15.7	17.7	41.9	24.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.2	.0	.4	.0	.2	.0	.0	.0	.0	.0	3.3	
NE	.0	.0	.1	.0	.6	.0	.0	.0	.0	.0	2.3	
E	.0	.0	.2	.0	.2	.2	.2	.2	.0	.0	2.0	
SE	.1	.0	.0	.0	.2	.4	.4	.0	.0	.0	2.4	
S	.4	.0	.0	1.9	1.6	1.2	.4	.0	.0	.0	12.0	
SW	.2	.0	.3	1.1	2.0	1.4	1.4	.5	.0	.0	21.8	
W	.5	.0	.2	.7	1.3	2.1	.4	.0	.0	.0	14.2	
NW	.1	.0	.1	.0	1.0	.2	.2	.0	.0	.0	3.7	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.2	.0	1.0	.2	.2	.0	.0	.0	11.7	
TOT OBS	0	6	15	38	24	13	3	0	2	294	401	
TOT PCT	1.5	.0	1.5	3.7	9.5	6.0	3.2	.7	.0	.5	73.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (>.4)

CEILING (FEET)	OR >10	OR >5	OR >2	VSBY (NM) OR >1	OR >1/2	OR >1/4	OR >50YD	OR >0
OR >6500	.5	.5	.5	.5	.5	.5	.5	.5
OR >5000	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
OR >3500	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
OR >2000	9.1	9.8	9.8	9.8	9.8	9.8	9.8	9.8
OR >1000	16.1	18.5	18.9	19.4	19.4	19.4	19.4	19.4
OR >600	18.2	22.2	22.7	23.1	23.1	23.1	23.1	23.1
OR >300	19.2	23.1	24.1	24.5	24.5	24.5	24.5	24.5
OR >150	19.2	23.1	24.1	24.5	24.5	24.5	24.5	24.5
OR >0	19.6	24.1	25.0	25.7	25.7	25.7	25.9	25.9
TOTAL	64	103	107	110	110	110	111	111

TOTAL NUMBER OF OBS: 428

PCT FREQ NH <5/8: 74.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
12.1	12.9	22.2	14.6	11.9	5.1	5.7	5.5	6.9	1.1	472

PERIOD: (PRIMARY) 1930-1972  
(OVER-ALL) 1879-1972

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
1<2	PCP	.1	.0	.0	.0	.0	.4	.0	.0	.0	.0	.5	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.0	.0	.4	.0	.0	.0	.0	.5	
2<5	PCP	.1	.0	.0	.0	.0	.2	.0	.2	.0	.0	.5	
	NO PCP	.1	.0	.0	.0	.4	.6	.1	.0	.0	.0	1.3	
	TOT %	.3	.1	.0	.0	.4	.8	.1	.2	.0	.0	1.8	
5<10	PCP	.1	.2	.2	.4	.3	.8	.6	.1	.0	.0	2.7	
	NO PCP	.8	.4	.2	1.3	3.6	6.0	3.3	.9	.0	2.0	18.4	
	TOT %	.9	.6	.4	1.7	3.9	6.8	3.9	1.0	.0	2.0	21.1	
10+	PCP	.2	.2	.0	.0	.7	.6	1.0	.5	.0	.2	3.4	
	NO PCP	2.6	2.0	3.0	4.3	11.8	20.1	14.0	4.3	.0	10.5	72.8	
	TOT %	2.8	2.2	3.0	4.3	12.6	20.7	15.0	4.8	.0	10.6	76.2	
TOT OBS													555
TOT PCT		4.1	2.9	3.3	6.2	16.8	28.7	19.2	6.0	.0	12.8	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.0	.0	.0	.0	.2	.0	.2	.0	.0	.5	
	11-21	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.0	.0	.3	.0	.2	.0	.0	.7	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
	4-10	.3	.1	.0	.0	.3	.4	.1	.0	.0	.0	1.2	
	11-21	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.3	.1	.0	.0	.3	.8	.1	.2	.0	.0	1.7	
5<10	0-3	.3	.0	.0	.3	1.4	.8	.4	.6	.0	1.9	5.8	
	4-10	.5	.4	.2	1.1	2.1	3.5	2.0	.3	.0	.0	10.1	
	11-21	.1	.0	.2	.2	.3	2.1	1.3	.1	.0	.0	4.3	
	22+	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	TOT %	.6	.6	.3	1.6	3.8	6.6	4.0	1.0	.0	1.9	20.6	
10+	0-3	.8	.5	1.0	1.0	2.2	2.4	2.8	.8	.0	10.3	21.9	
	4-10	1.4	1.2	1.8	3.3	8.7	13.3	10.6	3.4	.0	.0	43.7	
	11-21	.4	.3	.0	.2	1.6	5.1	2.9	.5	.0	.0	10.7	
	22+	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3	
	TOT %	2.7	2.1	2.9	4.4	12.5	21.1	15.9	4.7	.0	10.3	76.6	
TOT OBS													572
TOT PCT		3.9	2.8	3.2	6.0	16.6	28.8	20.1	6.0	.0	12.4	100.0	

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PERIOD: (PRIMARY) 1930-1972  
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH  $\geq 4/8$  AND  
OCCURRENCE OF NH  $\leq 5/8$  BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH $\leq 5/8$ ANY HGT	TOTAL OBS
00003	3.1	.0	.8	4.7	8.5	5.4	3.9	1.6	.0	.8	28.7	71.3	129
06009	1.0	.0	1.9	4.9	10.7	5.8	4.9	.0	.0	.0	29.1	70.9	103
12015	.0	.0	.8	2.5	9.2	5.8	2.5	.0	.0	.0	20.8	79.2	120
18021	.9	.0	1.9	1.9	7.5	3.7	.0	.9	.0	.9	17.8	82.2	107
TOT	6	0	6	16	41	24	13	3	0	2	111	348	459
PCT	1.3	.0	1.3	3.5	8.9	5.2	2.8	.7	.0	.4	24.2	75.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	$\leq 1/2$	1/2 $\leq$ 1	1 $\leq$ 2	2 $\leq$ 3	3 $\leq$ 10	10+	TOTAL OBS
00003	.6	.6	.6	2.3	18.6	77.4	177
06009	.0	.0	.4	1.5	17.7	80.0	130
12015	.0	.0	.6	1.8	21.3	76.3	169
18021	.0	.0	1.9	1.5	21.3	75.7	136
TOT	1	1	4	11	121	479	612
PCT	.2	.2	.8	1.8	19.8	77.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSRY (NM) AND/OR  
CEILING HGT (FEET) NH  $\geq 4/8$  BY HOUR

HOUR (GMT)	$\leq 150$ $\leq 500$	$\leq 600$ $\leq 1$	$\leq 1000$ $\leq 5$	$\leq 1000+$ AND 5+	NH $\leq 5/8$ AND 5+	TOTAL OBS
00003	3.4	4.2	11.8	21.0	67.2	119
06009	1.0	3.1	10.3	20.6	69.1	97
12015	.0	.9	6.3	18.8	75.0	112
18021	1.0	3.0	7.0	13.0	80.0	100
TOT	6	12	38	79	311	428
PCT	1.4	2.8	8.9	18.5	72.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	1.1	.4	.2	.0	8	1.8
85/89	.0	.0	.0	.2	2.2	8.3	1.8	.4	58	13.0
80/84	.0	.0	.0	.0	.7	25.2	38.7	9.0	327	73.5
75/79	.0	.0	.0	.0	.0	1.1	4.5	5.4	49	11.0
70/74	.0	.0	.0	.0	.0	.0	.0	.7	2	.7
TOTAL	0	0	0	1	18	156	201	69	445	100.0
PCT	.0	.0	.0	.2	4.0	35.1	45.2	15.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.4	.9	.0	.2	.0	.2
.5	.0	.2	.5	3.1	4.7	3.1	.2	.0	.7
2.8	2.0	2.4	4.3	11.7	21.2	14.2	4.8	.0	10.1
.5	.5	.4	1.3	3.3	2.1	1.2	.3	.0	1.3
.2	.1	.2	.1	.0	.2	.0	.0	.0	.0
4.0	2.3	3.3	6.2	18.6	29.1	18.4	5.6	.0	12.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	92	89	86	82	76	74	74	81.8	191
06009	93	91	89	84	79	76	76	83.2	152
12015	90	88	85	83	79	77	76	82.5	184
18021	86	85	84	82	77	75	73	81.5	156
TOT	93	90	87	82	77	75	73	82.4	683

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.7	3.5	29.8	45.4	20.6	82	141
06009	.0	.0	9.4	43.3	36.8	8.5	79	106
12015	.0	.0	2.9	35.8	46.7	14.6	82	137
18021	.0	.0	1.0	28.5	53.1	19.4	83	98
TOT	0	1	20	165	219	77	82	482

PERIOD: (PRIMARY) 1930-1972  
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	78 84	79 88	80 92	81 92	TOT	N FNG	NO FOG
7/8	.0	.0	.0	.0	.2	.2	2	.0	.4
6	.0	.0	.0	.0	.8	.0	4	.0	.8
5	.0	.0	.6	.2	1.0	.0	9	.0	1.8
4	.0	.0	.0	.8	.0	.0	4	.0	.8
3	.0	.0	.0	1.0	.2	.0	2	.0	1.8
2	.0	.2	1.4	2.8	.0	.0	23	.0	4.5
1	.0	.0	2.9	2.7	.0	.0	29	.0	5.7
0	.0	.2	11.9	3.1	.0	.0	78	.0	15.2
-1	.2	.4	11.9	1.0	.0	.0	69	.0	13.5
-2	.0	2.0	15.2	.0	.0	.0	88	.0	17.2
-3	.0	1.4	11.9	.6	.0	.0	71	.0	13.9
-4	.0	3.3	6.1	.0	.0	.0	48	.0	9.4
-5	.2	3.5	2.7	.2	.0	.0	34	.0	6.6
-6	.4	2.3	.6	.0	.0	.0	17	.0	3.3
-7/-8	1.0	3.1	.0	.0	.0	.0	21	.0	4.1
-9/-10	1.2	.0	.0	.0	.0	.0	6	.0	1.2
TOTAL	15	84	334	67	11	1	512	0	512
PCT	2.9	16.4	65.2	13.1	2.1	.2	100.0		100.0

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.0	.0	.0	.0	.0	1.0	.0	.2	.0	.0	.0	.0	.2
1-2	.7	3.2	.0	.0	.0	.0	3.9	.0	1.5	.0	.0	.0	.0	1.5
3-4	.0	.3	.5	.0	.0	.0	1.0	.0	.4	.0	.0	.0	.0	.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	4.7	.5	.0	.0	.0	5.9	.0	1.8	.0	.0	.0	.0	1.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	2.0	.7	.0	.0	.0	.0	2.7	.7	.7	.0	.0	.0	.0	1.3
1-2	.0	.5	.0	.0	.0	.0	.5	1.0	1.8	.0	.0	.0	.0	2.9
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.7
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.0	1.2	.0	.0	.0	.0	3.2	1.7	3.4	.0	.0	.0	.0	5.0

PERIOD: (OVER-ALL) 1963-1972

AUGUST

AREA 0007 SARAWAK  
3.7N 111.8E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	2.0	.0	.0	.0	.0	.0		2.0	1.3	1.3	.7	.0	.0	.0		3.4
1-2	2.3	7.2	1.3	.0	.0	.0	10.9		.7	5.0	1.5	.0	.0	.0		7.2
3-4	.0	3.7	.7	.0	.0	.0	4.4		.0	8.6	2.0	.0	.0	.0		10.6
5-6	.0	.0	.7	.0	.0	.0	.7		.0	.0	3.4	.0	.0	.0		3.4
7	.0	.0	.0	.0	.0	.0	.0		.0	.2	.2	.0	.0	.0		.3
8-9	.0	.0	.0	.0	.0	.0	.0		.0	.0	.2	.0	.0	.0		.2
10-11	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0
TOT PCT	4.4	10.9	2.7	.0	.0	.0	18.0		2.0	13.1	7.9	.0	.0	.0		23.0

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	2.0	.0	.0	.0	.0		2.0	1.3	.8	.0	.0	.0	.0		2.2	
1-2	.7	12.2	.5	.0	.0	.0	13.4		.7	2.0	.0	.0	.0	.0		2.7	
3-4	.0	3.0	.7	.0	.0	.0	3.7		.0	.0	.2	.0	.0	.0		.2	
5-6	.0	1.3	.0	.0	.0	.0	1.3		.0	.0	.7	.0	.0	.0		.7	
7	.0	.5	.5	.0	.0	.0	1.0		.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	1.8	.0	.0	.0	1.8		.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	1.3	.0	.0	.0	1.3		.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.7	19.1	4.9	.0	.0	.0	24.7		2.0	2.9	.9	.0	.0	.0		5.7	89.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	18.7	6.7	.7	.0	.0	.0	25.4	085
1-2	6.0	33.3	3.3	.0	.0	.0	42.7	
3-4	.0	16.0	4.0	.0	.0	.0	20.0	
5-6	.0	2.0	4.7	.0	.0	.0	6.7	
7	.0	.7	.7	.0	.0	.0	1.3	
8-9	.0	.0	2.0	.0	.0	.0	2.0	
10-11	.0	.0	1.3	.0	.0	.0	1.3	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	24.7	58.7	16.7	.0	.0	.0	100.0	150

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	7.7	10.4	17.6	5.8	.5	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	195	2
6-7	.3	3.3	6.7	1.9	.0	.3	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	42	3
8-9	.0	.0	1.0	1.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	4
10-11	.0	.0	.6	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	5
12-13	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	5
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDEX	12.5	4.2	2.9	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	64	1
TOTAL	84	119	90	31	4	3	2	0	0	0	0	0	0	0	0	0	0	0	0	313	2
PCT	20.4	38.0	28.8	9.9	1.3	1.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

## SEPTEMBER

PERIOD: (PRIMARY) 1927-1972  
(OVER-ALL) 1858-1972AREA 0007 SARAWAK  
3.0N 111.8E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	DUST SNOW	NO SIG WEA
N	2.5	1.9	2.5	.0	.0	.0	.0	6.9	.0	6.3	.0	.0	2.5	.0		84.4
NE	.0	3.2	3.2	.0	.0	.0	.0	6.3	3.2	3.2	.0	.0	.0	.0		87.3
E	4.6	.0	4.6	.0	.0	.0	.0	9.2	.0	.0	.0	.0	4.6	.0		86.2
SE	3.1	.0	.0	.0	.0	.0	.0	3.1	.0	.0	.0	.0	.0	.0		96.9
S	.0	2.7	1.8	.0	.0	.0	.0	4.4	.0	.0	.0	.0	2.7	.0		89.4
SW	6.3	2.2	2.8	.0	.0	.0	.0	10.5	3.2	3.4	.0	.0	2.0	.8		81.1
W	9.3	2.2	3.1	.0	.0	.0	.0	13.3	.0	3.4	.0	.0	.9	.0		82.4
NW	2.8	4.2	3.7	.0	.0	.0	.0	8.9	.0	.9	.0	.0	.5	.0		89.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0
CALM	1.4	.0	.0	.0	.0	.0	.0	1.4	.0	8.1	4.1	.0	14.9	.0		71.6
TOT PCT	4.1	1.9	2.3	.0	.0	.0	.0	7.7	1.0	3.7	.6	.0	3.5	.2		83.6
TOT OBS:	517															

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
00003	4.4	2.5	1.9	.0	.0	.0	.0	8.8	2.5	1.3	1.3	1.3	3.1	.0	82.5
06009	1.5	2.2	1.5	.0	.0	.0	.0	5.2	.0	.0	.0	.0	3.7	.7	90.3
12015	2.7	.0	2.7	.0	.0	.0	.0	4.0	.0	4.0	1.3	.0	3.4	.0	87.2
18021	6.8	2.5	2.5	.0	.0	.0	.0	11.0	.0	9.3	2.5	.0	2.5	.0	73.7
TOT PCT OBS:	3.7	1.8	2.1	.0	.0	.0	.0	7.1	.9	3.4	1.2	.4	3.2	.2	83.8

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.8	4.6	.7	.0	.0	.0		7.1	5.9	3.1	6.8	4.0	4.3	8.0	16.3	8.6	11.2	
NE	1.7	4.1	.5	.0	.0	.0		6.3	6.0	7.3	3.4	7.0	1.4	4.5	10.0	7.1	9.7	
E	1.3	3.1	.1	.0	.0	.0		4.6	5.2	8.0	5.7	7.0	.7	1.4	1.3	3.9	5.2	
SE	1.9	4.9	.9	.0	.0	.0		7.7	5.9	12.8	11.4	7.2	4.9	2.4	7.5	3.2	15.7	
S	2.2	7.1	1.9	.0	.0	.0		10.7	6.7	13.1	19.3	16.0	6.9	5.9	5.0	10.5	6.7	
SW	3.0	16.6	5.6	.6	.0	.0		25.9	8.3	27.4	30.7	30.3	26.0	21.7	18.8	22.8	28.0	
W	3.0	9.8	2.9	.2	.0	.0		15.5	7.0	9.3	11.4	10.8	28.1	27.1	16.3	8.6	13.8	
NW	2.2	5.7	1.0	.0	.0	.0		9.0	6.3	4.7	6.6	7.4	15.3	9.3	20.0	11.8	5.2	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	13.3							13.3	.0	14.3	4.5	10.3	8.3	19.6	5.0	23.5	4.5	
TOT OBS	230	424	98	6	0	0	758		6.0	154	44	136	72	143	40	102	87	
TOT PCT	30.3	55.9	12.9	.8	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+						00	06	12	18	21
N	5.0	1.9	.1	.0	.0			7.1	5.9	3.9	3.5	9.8	9.4		
NE	3.8	2.4	.0	.0	.0			6.3	6.0	6.4	5.0	5.7	8.1		
E	3.4	1.2	.0	.0	.0			4.6	5.2	7.4	4.8	1.4	4.4		
SE	5.3	2.4	.0	.0	.0			7.7	5.9	12.5	6.4	3.6	8.1		
S	6.6	3.9	.2	.0	.0			10.7	6.7	14.5	12.9	5.7	9.0		
SW	11.3	13.1	1.5	.0	.0			25.9	8.3	28.2	28.8	21.0	24.9		
W	9.1	6.0	.3	.1	.0			15.5	7.0	9.7	16.8	24.7	10.7		
NW	5.7	3.0	.3	.0	.0			9.0	6.3	3.2	10.1	11.6	9.2		
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0		
CALM	13.3							13.3	.0	12.1	9.6	16.4	16.0		
TOT OBS	482	257	18	1	0	758			6.0	198	208	183	169		
TOT PCT	63.6	33.9	2.4	.1	.0			100.0		100.0	100.0	100.0	100.0		

SEPTEMBER

PERIOD: (PRIMARY) 1927-1972  
(OVER-ALL) 1858-1972

AREA 0007 SARAWAK  
3.6N 111.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47	48+			
06003	12.1	15.2	55.1	16.7	.0	.0	.0	6.1	100.0	198
06209	9.6	18.3	58.7	13.0	.5	.0	.0	6.2	100.0	208
12015	16.4	14.8	56.3	11.5	1.1	.0	.0	5.9	100.0	183
18021	16.0	18.9	53.3	10.1	1.8	.0	.0	5.7	100.0	169
TOT	101	129	424	98	6	0	0	6.0		758
PCT	13.3	17.0	55.9	12.9	.8	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9 OBS	TOTAL OBS	MEAN CLOUD COVER
N	1.1	.9	3.2	1.2		5.3
NE	1.6	.6	4.0	1.0		5.0
E	1.3	.6	2.0	.9		5.0
SE	.6	.7	2.9	1.2		5.5
S	1.3	3.6	5.2	2.5		5.1
SW	3.4	3.1	10.4	8.1		5.7
W	.6	3.0	4.4	4.1		5.6
NW	1.1	2.1	2.4	1.8		5.2
VAR	.0	.0	.0	.0		.0
CALM	2.5	4.4	9.1	3.1		5.1
TOT OBS	43	61	139	76	319	5.3
TOT PCT	13.5	19.1	43.6	23.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6300	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.0	1.8	.8	.5	.0	.0	.0	.0	3.3
.0	.0	.0	.4	1.6	.3	.0	.0	.0	.0	.0	4.9
.0	.0	.0	.9	.3	.3	.0	.0	.0	.0	.0	3.0
.0	.0	.0	.1	.5	.1	.0	.0	.0	.0	.0	4.8
.0	.0	.0	.9	1.9	.5	.0	.0	.0	.0	.0	9.2
.3	.0	.3	2.6	2.7	.6	.6	.0	.0	.0	.0	17.9
.0	.0	.3	1.2	2.7	.3	.2	.0	.0	.0	.0	7.3
.0	.0	.3	.3	1.1	.5	.2	.0	.0	.0	.0	5.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.3	.0	.0	1.3	1.3	.9	.3	.0	.0	.0	.0	14.4
2	.0	3	24	44	14	7	0	0	0	2	223
.6	.0	.9	7.5	13.8	4.4	2.2	.0	.0	.6	69.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
>5000	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
>3500	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
>2000	6.2	7.3	7.6	7.6	7.6	7.6	7.6	7.6
>1000	16.1	19.7	20.3	20.3	20.3	20.3	20.3	20.3
>600	20.6	25.9	27.0	27.0	27.0	27.0	27.0	27.0
>300	20.8	26.2	27.9	27.9	27.9	27.9	27.9	27.9
>150	20.8	26.2	27.9	27.9	27.9	27.9	27.9	27.9
>0	21.1	26.8	28.5	28.5	28.5	28.5	28.7	28.7
TOTAL	75	95	101	101	101	101	102	102

TOTAL NUMBER OF OBS: 355

PCT FREQ NH <5/8: 71.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	9	TOTAL OBS
10.0	11.8	19.2	16.4	12.3	7.2	7.7	6.7	7.9	.8	390



SEPTEMBER

PERIOD: (PRIMARY) 1927-1972  
(OVER-ALL) 1858-1972

AREA 0007 SARAWAK  
3.6N 111.8E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2
1/2<1	PCP	.0	.0	.0	.0	.0	.1	.1	.2	.0	.0	.4	.4
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.1	.1	.2	.0	.0	.4	.4
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.4	.4
	TOT %	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.4	.4
2<5	PCP	.0	.0	.2	.0	.0	.2	.2	.2	.0	.0	.8	.8
	NO PCP	.1	.4	.0	.0	.3	.1	.5	.2	.0	.2	1.9	1.9
	TOT %	.1	.4	.2	.0	.3	.3	.7	.4	.0	.2	2.7	2.7
5<10	PCP	.4	.0	.2	.0	.3	1.6	1.1	.3	.0	.2	4.1	4.1
	NO PCP	1.7	1.1	.4	1.8	2.4	5.0	4.3	2.3	.0	3.3	22.2	22.2
	TOT %	2.1	1.1	.6	1.8	2.7	6.6	5.4	2.6	.0	3.5	26.3	26.3
10+	PCP	.1	.4	.0	.2	.2	.7	.7	.2	.0	.0	2.5	2.5
	NO PCP	5.3	4.2	3.2	4.2	7.8	16.8	8.6	6.9	.0	10.4	67.5	67.5
	TOT %	5.3	4.6	3.2	4.4	8.0	17.5	9.3	7.1	.0	10.4	70.0	70.0
TOT OBS													517
TOT PCT		7.7	6.1	4.2	6.2	10.9	24.9	15.7	10.3	.0	14.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.2
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.2
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	.2
	4-10	.0	.2	.0	.0	.0	.2	.2	.0	.0	.0	.5	.5
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.2	.0	.0	.0	.2	.2	.2	.0	.0	.7	.7
1<2	0-3	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	.2
	4-10	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	.2
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.2	.2
2<5	0-3	.1	.2	.0	.0	.0	.0	.2	.2	.0	.2	.8	.8
	4-10	.2	.2	.2	.2	.3	.1	.5	.2	.0	.0	1.8	1.8
	11-21	.0	.0	.0	.0	.0	.2	.2	.2	.0	.0	.5	.5
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.3	.4	.2	.2	.3	.2	.8	.5	.0	.2	3.1	3.1
5<10	0-3	.4	.2	.2	.5	.4	1.3	1.1	.5	.0	3.8	8.6	8.6
	4-10	1.8	1.4	.5	2.0	2.3	3.9	4.0	2.1	.0	.0	17.9	17.9
	11-21	.5	.1	.2	.4	.6	1.3	.9	.2	.0	.0	4.1	4.1
	22+	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3	.3
	TOT %	2.9	1.7	.7	2.9	3.3	6.8	6.0	2.8	.0	3.8	31.0	31.0
10+	0-3	1.4	1.4	.9	1.4	1.8	1.3	1.1	1.5	.0	9.6	20.5	20.5
	4-10	3.3	3.3	2.6	2.9	4.7	16.1	6.0	4.3	.0	.0	36.3	36.3
	11-21	.2	.5	.0	.2	.9	4.1	1.3	.4	.0	.0	7.8	7.8
	22+	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.2
	TOT %	4.8	4.2	3.5	4.5	7.4	19.7	8.7	6.3	.0	9.6	64.7	64.7
TOT OBS													606
TOT PCT		8.0	6.3	4.6	7.6	11.0	28.0	15.8	9.8	.0	19.7	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1927-1972  
(OVER-ALL) 1858-1972

AREA 0007 SARAWAK  
3.6N 111.8E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH < 5/8 ANY HGT	TOTAL OBS
00003	.9	.0	2.8	8.3	15.6	.9	.9	.0	.0	.9	30.3	69.7	109
06009	.0	.0	.0	5.2	9.3	5.2	2.1	.0	.0	1.0	22.7	77.3	97
12015	1.1	.0	.0	7.5	12.9	3.2	3.2	.0	.0	.0	28.0	72.0	93
18021	1.3	.0	.0	3.9	9.2	7.9	2.6	.0	.0	3.9	28.9	71.1	76
TOT	3	0	3	24	45	15	8	0	0	5	103	272	375
PCT	.8	.0	.8	6.4	12.0	4.0	2.1	.0	.0	1.3	27.5	72.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.5	1.1	1.6	2.2	33.3	61.2	103
06009	.0	.0	.6	1.9	20.0	77.4	135
12015	.0	.0	.0	2.9	39.9	61.2	170
18021	.0	1.4	.0	5.7	27.1	65.7	140
TOT	1	4	4	20	191	428	648
PCT	.2	.6	.6	3.1	29.5	66.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET) NH > 4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL OBS
00003	1.0	3.8	14.4	19.2	66.3	104
06009	.0	.0	5.4	17.4	77.2	92
12015	1.1	1.1	13.6	19.3	67.0	88
18021	1.4	1.4	11.3	23.9	64.8	71
TOT	3	6	40	70	245	355
PCT	.8	1.7	11.3	19.7	69.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.5	.5	.2	.0	.0	5	1.2
85/89	.0	.0	.0	.2	4.0	9.3	3.0	.0	72	16.7
80/84	.0	.0	.0	.0	.9	23.0	38.6	7.0	299	69.5
75/79	.0	.0	.0	.0	.2	.5	4.9	7.0	54	12.6
TOTAL	0	0	0	3	24	142	200	81	430	100.0
PCT	.0	.0	.0	.7	5.6	33.0	46.5	14.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
.1	.0	.0	.0	.0	.0	.0	.2	.1	.0	.7
1.3	1.4	.9	.5	1.9	3.1	2.4	1.0	.0	3.7	
4.9	4.2	3.0	4.4	8.0	16.6	11.4	7.2	.0	10.0	
.9	.3	.6	1.6	.9	4.1	1.5	1.4	.0	1.2	
7.2	5.9	4.6	6.5	10.8	23.7	15.5	10.3	.0	15.6	

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	88	86	82	77	75	75	81.6	195
06009	95	92	90	84	79	76	74	83.9	205
12015	87	86	86	82	79	77	75	82.2	175
18021	86	85	84	81	78	75	75	81.2	175
TOT	95	91	87	82	78	75	74	82.3	750

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.7	.7	27.9	47.1	23.5	84	136
06009	.0	2.8	14.8	50.9	25.0	6.5	76	108
12015	.0	.0	4.0	28.8	60.0	7.2	81	125
18021	.0	.0	3.0	31.3	50.5	15.2	82	99
TOT	0	4	25	180	216	63	81	468

SEPTEMBER

PERIOD: (PRIMARY) 1927-1972  
(OVER-ALL) 1850-1972

TABLE 17

AREA 0007 SARAWAK  
3.6N 111.8E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.0	.2	1	.0	.2
9/10	.0	.0	.0	.0	.2	1	.0	.2
7/8	.0	.0	.0	.0	.4	2	.0	.4
6	.0	.0	.2	.2	.2	3	.4	.2
5	.0	.0	.2	.0	.6	4	.0	.8
4	.0	.2	.6	1.2	.4	12	.4	2.0
3	.0	.0	.2	1.4	.2	9	.0	1.8
2	.0	.0	1.6	3.0	.0	23	.0	4.6
1	.0	.2	4.2	5.0	.0	47	.2	9.1
0	.0	.2	11.3	4.0	.0	78	.2	15.2
-1	.0	.6	11.1	1.2	.0	65	.0	12.9
-2	.2	1.4	14.3	.2	.0	81	.2	15.8
-3	.0	2.8	6.7	.0	.0	48	.0	9.5
-4	.2	6.2	5.0	.2	.0	59	.0	11.7
-5	.0	4.8	1.8	.0	.0	33	.0	8.5
-6	.4	3.6	.2	.0	.0	21	.0	4.2
-7/-8	1.2	1.8	.0	.0	.0	15	.0	3.0
-9/-10	.4	.2	.0	.0	.0	3	.0	.6
TOTAL	12		289		11	505	7	498
PCT	2.4	22.0	57.2	16.2	2.2	100.0	1.4	98.6

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.6	.0	.8	.0	.0	.0	2.4	1.6	.0	.0	.0	.0	.0	1.6
1-2	1.4	2.0	.0	.0	.0	.0	3.4	.7	3.4	.0	.0	.0	.0	3.6
3-4	.0	1.6	.0	.0	.0	.0	1.6	.0	.8	.0	.0	.0	.0	.8
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	3.0	3.6	.8	.0	.0	.0	7.4	1.8	4.2	.0	.0	.0	.0	6.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.8	1.6	.0	.0	.0	.0	2.4
1-2	.0	5.2	.0	.0	.0	.0	5.2	1.6	2.0	.8	.0	.0	.0	4.4
3-4	.0	.0	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	2.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.2	.0	.0	.0	.0	5.2	2.4	5.6	.8	.0	.0	.0	8.8

PERIOD: (OVER-ALL) 1963-1972

SEPTEMBER

AREA 0037 SARAWAK  
3.6N 111.8E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	CT
<1	.0	.0	.0	.0	.0	.0	.0	.2	2.6	.0	.0	.0	.0	.8
1-2	.8	5.6	.0	.0	.0	.0	6.4	1.0	5.2	2.8	.0	.0	.0	1.0
3-4	.8	1.2	.0	.0	.0	.0	2.0	.2	4.2	1.8	.0	.0	.0	2.2
5-6	.0	.0	1.8	.0	.0	.0	1.8	.0	.0	4.6	.0	.0	.0	4.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	.0	.0	.0	2.4
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.6	.0	.0	.0	.0	.6	.0	.2	.0	.0	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.6	7.4	1.8	.0	.0	.0	10.8	1.4	12.2	11.6	.0	.0	.0	25.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.2	.6	.0	.0	.0	.0	1.8	1.0	.8	.0	.0	.0	.0	1.8	
1-2	.6	5.0	1.2	.0	.0	.0	6.8	.0	1.2	.8	.0	.0	.0	2.0	
3-4	.6	1.4	.6	.0	.0	.0	2.6	.0	.8	.0	.0	.0	.0	.8	
5-6	.0	.8	.8	.0	.0	.0	1.6	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.8	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.4	7.6	3.4	.0	.0	.0	13.6	1.0	2.8	.8	.0	.0	.0	4.6	81.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	25.4	5.6	.8	.0	.0	.0	31.7	
1-2	5.6	29.4	5.6	.0	.0	.0	40.5	
3-4	1.6	11.9	2.4	.0	.0	.0	15.9	
5-6	.0	.8	7.1	.0	.0	.0	7.9	
7	.0	.0	2.2	.0	.0	.0	2.2	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.8	.0	.0	.0	.0	.8	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	22.5	48.4	19.0	.0	.0	.0	100.0	126

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	8.5	30.4	11.3	4.5	1.2	.4	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	141	2
6-7	.0	4.0	6.5	3.6	1.2	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	41	4
8-9	.0	.4	.4	.0	.0	.4	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	6
10-11	.0	.0	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	4
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	20.2	2.4	.8	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	59	1
TOTAL	71	92	48	21	6	5	1	3	0	0	0	0	0	0	0	0	0	0	0	247	2
PCT	28.7	37.2	19.4	8.5	2.4	2.0	.4	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

OCTOBER

PERIOD: (PRIMARY) 1926-1972  
(OVER-ALL) 1858-1972AREA 0007 SARAWAK  
3.7N 111.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG MEA
N	14.9	.0	.0	.0	.0	.0	.0	14.9	.0	4.0	.0	.0	2.3	.0	78.7
NE	7.3	4.9	.0	.0	.0	.0	.0	12.2	5.5	3.0	.0	.0	.0	.0	80.5
E	8.2	1.2	4.7	.0	.0	.0	.0	14.0	3.5	1.8	.0	.0	.0	.0	80.7
SE	3.9	2.6	6.1	.0	.0	.0	.0	12.7	3.5	1.8	.0	.0	.0	.0	83.8
S	5.4	3.3	.8	.0	.0	.0	.0	9.6	7.5	1.7	.0	.0	2.9	.0	78.3
SW	5.9	6.9	1.8	.0	.0	.0	.0	14.6	2.5	3.0	.9	.0	1.1	.0	77.8
W	2.7	3.2	.0	.0	.0	.0	.0	5.9	1.6	3.9	.0	.0	1.8	.0	86.8
NW	5.9	1.5	.0	.0	.0	.0	.0	7.4	1.3	6.6	.0	.0	.0	.0	84.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.7	.0	.0	.0	.0	.0	.0	1.7	.0	5.2	.0	.0	3.4	.0	89.7
TOT PCT	5.7	3.2	1.3	.0	.0	.0	.0	10.2	2.9	3.5	.2	.0	1.3	.0	82.4
TOT OBS:	630														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG MEA
00003	9.6	4.2	1.8	.0	.0	.0	.0	15.6	6.6	.6	.6	.0	.6	.0	76.6
06004	3.2	1.9	.0	.0	.0	.0	.0	5.1	3.8	.0	.0	.0	1.3	.0	89.8
12015	3.5	.6	.6	.0	.0	.0	.0	4.7	1.2	5.3	.0	.0	2.3	.0	86.5
18021	6.8	6.1	2.7	.0	.0	.0	.0	15.6	.0	9.5	.0	.0	.7	.0	74.8
TOT PCT	5.8	3.1	1.2	.0	.0	.0	.0	10.1	3.0	3.7	.2	.0	1.2	.0	82.1
TOT OBS:	642														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL DBS	PCT FRQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.2	6.5	.1	.0	.0	.0		7.8	5.8		4.0	4.8	3.4	6.7	11.3	9.6	12.1	10.7
NE	2.3	8.2	1.2	.0	.0	.0		11.7	6.5		13.2	6.0	12.6	8.3	11.3	9.0	15.4	10.0
E	1.6	4.0	.5	.0	.0	.0		6.1	5.0		8.1	8.9	8.6	4.3	4.0	4.8	5.5	4.0
SE	2.0	4.7	1.1	.0	.0	.0		7.7	6.7		15.2	19.5	6.2	4.7	3.1	4.3	3.1	10.7
S	1.5	5.4	2.1	.1	.1	.0		9.2	8.4		16.1	14.3	10.9	6.7	3.0	7.4	5.7	12.0
SW	2.0	10.0	6.2	.5	.2	.0		19.0	10.1		14.8	29.8	22.7	25.3	16.9	17.0	13.9	23.7
W	2.7	10.5	4.4	.4	.1	.0		18.0	8.6		12.7	4.8	15.4	22.0	28.7	28.7	17.2	13.7
NW	1.9	7.6	.9	.3	.0	.0		10.8	6.8		7.1	7.1	6.1	16.7	12.4	17.0	13.1	8.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	9.5	.0	.0	.0	.0	.0		9.5	.0		8.7	4.8	12.0	5.3	11.2	2.1	14.1	6.7
TOT DBS	204	468	136	11	3	0		822	7.1		161	42	133	75	161	47	128	75
TOT PCT	24.8	56.9	16.9	1.3	.4	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL DBS	PCT FRQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	5.0	2.8	.0	.0	.0		7.8	5.8	4.2	4.6	10.9	11.6	
NE	7.1	4.4	.2	.0	.0		11.7	6.5	11.7	11.1	10.8	13.4	
E	3.9	2.2	.0	.0	.0		6.1	5.0	8.3	7.1	4.2	4.9	
SE	4.0	3.6	.1	.0	.0		7.7	6.7	16.1	5.6	3.4	5.9	
S	3.5	5.2	.5	.1	.0		9.2	8.4	15.8	9.4	4.0	8.0	
SW	5.9	10.5	2.2	.2	.1		19.0	10.1	17.9	23.7	16.9	17.5	
W	8.0	8.2	1.6	.2	.0		18.0	8.6	11.1	17.8	27.2	15.9	
NW	6.5	3.7	.6	.0	.0		10.8	6.8	7.1	11.2	13.5	11.5	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	9.5	.0	.0	.0	.0		9.5	.0	7.9	9.6	9.1	11.3	
TOT DBS	440	334	43	4	1		822	7.1	203	208	208	203	
TOT PCT	53.9	40.8	5.2	.5	.1		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1926-1972  
(OVER-ALL) 1898-1972

OCTOBER

AREA 0007 SARAWAK  
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOURL	CALM	1-3	4-10	WIND SPEED (KNOTS) 11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	7.9	13.8	57.1	20.2	.5	.5	.0	7.6	100.0	203
06009	9.6	21.6	52.4	14.4	1.4	.5	.0	6.9	100.0	208
12015	9.1	19.0	62.0	14.4	1.4	.0	.0	6.8	100.0	208
18021	11.3	12.8	56.2	17.2	2.0	.5	.0	7.1	100.0	203
TOT	78	126	488	136	11	3	0	7.1		822
PCT	9.5	15.3	56.9	16.5	1.3	.4	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.3	2.1	1.6	2.0		4.8
NE	1.0	3.4	7.6	3.1		5.7
E	.3	2.4	2.7	2.1		5.8
SE	.6	.2	2.9	2.4		6.2
S	.2	1.3	5.9	3.1		6.5
SW	.4	3.1	5.5	5.4		6.2
W	1.7	2.9	9.7	3.7		5.6
NW	1.9	.4	3.6	3.7		5.7
VAR	.0	.0	.0	.0		.0
CALM	2.9	2.9	4.0	2.3		4.5
TOT OBS	36	65	152	97	350	5.7
TOT PCT	10.3	18.6	43.4	27.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	1.4	.6	.0	.0	.0	.3	.0	4.8	
.0	.0	.1	.9	1.7	.6	.9	.0	.0	.0	10.9	
.0	.0	.4	1.1	.0	.3	.3	.0	.0	.0	5.3	
.0	.3	.6	.3	.4	.9	.6	.4	.3	.0	2.3	
.2	.0	.2	.6	2.1	1.1	.7	.2	.3	.0	5.1	
.4	.0	.9	2.0	3.5	.6	.2	.0	.0	.1	6.6	
.3	.0	.9	.9	2.7	2.1	1.0	.0	.2	.2	10.6	
.0	.3	.0	1.5	1.0	.8	.3	.0	.1	.3	5.2	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.6	1.4	.6	.6	.0	.0	.0	8.9	
.3	2	8	32	47	25	16	2	4	2	209	350
.9	.6	2.3	9.1	13.4	7.1	4.6	.6	1.1	.6	59.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NH) = OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7
= OR >5000	1.7	2.5	2.5	2.5	2.5	2.5	2.5	2.5
= OR >3500	5.9	7.0	7.0	7.0	7.0	7.0	7.0	7.0
= OR >2000	11.8	14.0	14.3	14.3	14.3	14.3	14.3	14.3
= OR >1000	21.6	25.8	27.5	27.5	27.5	27.5	27.5	27.5
= OR >600	26.1	33.7	36.0	36.0	36.0	36.2	36.2	36.2
= OR >300	27.8	35.7	37.9	38.2	38.2	38.5	38.5	38.5
= OR >150	28.1	36.2	38.5	38.8	38.8	39.0	39.0	39.0
= OR >0	28.1	36.8	39.0	39.6	39.6	39.9	39.9	39.9
TOTAL	100	131	139	141	141	142	142	142

TOTAL NUMBER OF OBS: 356

PCT FREQ NH <5/8: 60.1

TABLE 7A

PERCENTAGE FREQ OF COM CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
4.4	8.6	17.4	15.9	13.0	9.6	10.3	8.1	12.3	.5	408

PERIOD: (PRIMARY) 1926-1972  
(OVER-ALL) 1858-1972

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AREA 0007 SARAWAK  
3.7N 111.8E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	
	TOT %	.0	.0	.0	.2	.0	.0	.1	.1	.0	.0	.3	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
1<2	PCP	.0	.2	.0	.3	.0	.3	.0	.0	.0	.0	.8	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.0	.3	.0	.3	.0	.0	.0	.0	.8	
2<5	PCP	.3	.0	.0	.0	.4	.4	.0	.0	.0	.0	1.1	
	NO PCP	.0	.1	.2	.0	.0	.2	.3	.0	.0	.0	.8	
	TOT %	.3	.1	.2	.0	.4	.6	.3	.0	.0	.0	1.9	
5<10	PCP	.3	.6	.8	.2	.2	.7	.6	.3	.0	.0	3.7	
	NO PCP	2.1	2.2	.9	3.1	2.1	4.8	4.8	3.2	.0	1.6	24.8	
	TOT %	2.5	2.8	1.7	3.3	2.3	5.5	5.3	3.5	.0	1.6	28.5	
10+	PCP	.4	.9	.2	.4	.4	.8	.5	.5	.0	.2	4.1	
	NO PCP	9.7	9.1	4.7	4.9	6.5	9.7	11.3	6.7	.0	7.5	64.2	
	TOT %	4.1	10.0	4.9	5.3	6.9	10.5	11.7	7.2	.0	7.6	68.3	
TOT OBS		4.9	13.1	6.8	9.1	9.6	17.1	17.5	10.8	.0	9.2	109.0	628
TOT PCT													

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.0	.0	.1	.1	.0	.0	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.2	.0	.0	.0	.3	.0	.0	.0	.0	.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.0	.3	.0	.3	.0	.0	.0	.0	.8	
2<5	0-3	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.3	
	4-10	.3	.0	.0	.2	.2	.2	.3	.0	.0	.0	1.2	
	11-21	.0	.1	.2	.0	.2	.4	.0	.0	.0	.0	.9	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.3	.1	.2	.2	.4	.8	.5	.0	.0	.0	2.4	
5<10	0-3	.3	.0	.5	.8	.0	.3	.2	.7	.0	1.7	4.4	
	4-10	2.3	2.3	1.0	1.8	1.1	2.4	2.9	2.1	.0		13.9	
	11-21	.1	.3	.2	.6	.9	2.3	1.8	.6	.0		6.8	
	22+	.0	.0	.0	.0	.2	.2	.2	.0	.0		.5	
	TOT %	2.7	2.6	1.6	3.1	2.1	5.2	5.0	3.4	.0	1.7	27.5	
10+	0-3	.8	2.1	1.2	1.6	1.2	.8	1.8	1.7	.0	8.1	19.2	
	4-10	3.5	7.2	3.8	3.2	4.4	8.8	8.8	4.7	.0		40.5	
	11-21	.0	.9	.3	.4	1.2	2.8	2.7	.5	.0		8.9	
	22+	.0	.0	.0	.0	.0	.0	.0	.3	.0		.3	
	TOT %	4.4	10.2	5.2	5.1	6.9	10.3	11.2	7.3	.0	8.1	68.9	
TOT OBS		7.3	13.2	7.0	8.9	9.5	16.9	16.7	10.8	.0	9.8	100.0	665
TOT PCT													

PERIOD: 15 MAR 79 00-1200  
(JWER-ALL) 185A-1912

AREA 0077 SARAWAK  
3.7N 111.8E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	100 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	1.0	1.0	5.0	13.0	15.0	9.0	7.0	2.0	3.0	.0	56.0	44.0	100
06009	1.0	.0	.0	5.0	9.9	6.9	4.0	.0	1.0	1.0	28.7	71.3	101
12015	.0	.0	3.2	4.2	12.6	5.3	3.2	.0	.0	1.1	29.5	70.5	95
18021	1.1	1.1	.0	12.2	11.1	5.6	2.2	1.1	.0	.0	34.4	65.6	90
TOT	3	2	8	33	47	26	16	3	4	2	144	242	386
PCT	.8	.5	2.1	8.5	12.2	6.7	4.1	.8	1.0	.5	37.3	62.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	1.2	.6	1.2	3.5	30.2	63.4	172
06009	.0	.0	.4	.0	19.4	80.0	163
12015	.0	.0	.0	2.8	33.7	63.5	181
18021	.6	.0	1.3	3.1	25.0	70.0	180
TOT	3	1	9	16	185	468	878
PCT	.4	.1	.7	2.4	27.3	69.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET) NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	1.1	8.5	23.4	35.1	41.5	94
06009	1.1	1.1	5.5	25.3	69.2	91
12015	.0	3.4	10.2	22.7	67.0	88
18021	1.2	2.4	18.1	.9	62.7	83
TOT	3	14	51	92	213	356
PCT	.8	3.9	14.3	25.8	59.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.4	.4	.2	.0	3	1.0
85/89	.0	.0	.0	.2	1.0	5.9	3.5	.6	97	11.2
80/84	.0	.0	.0	.0	.4	20.6	41.5	11.2	375	73.7
75/79	.0	.0	.0	.0	.2	.2	2.9	10.4	70	19.8
70/74	.0	.0	.0	.0	.0	.0	.4	.0	2	.4
TOTAL	0	0	0	1	10	138	247	113	509	100.0
PCT	.0	.0	.0	.2	2.0	27.1	48.5	22.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.2	.0	.0	.0	.0	.1	.0	.0	.6
.5	1.2	.5	1.4	.6	1.2	2.4	2.0	.0	1.0
5.4	10.3	5.0	4.9	6.2	12.5	14.2	7.8	.0	7.3
.9	1.4	.9	1.9	2.7	3.0	1.7	1.1	.0	.2
.0	.0	.0	.0	.0	.0	.1	.2	.0	.0
7.1	13.1	6.6	8.1	9.5	18.8	18.6	11.1	.0	9.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	89	86	81	77	75	75	81.4	203
06009	92	91	89	83	79	77	76	83.3	212
12015	87	86	84	82	79	77	72	81.7	212
18021	89	84	83	81	77	76	73	81.1	205
TOT	92	89	86	82	78	76	72	81.9	832

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	.0	.0	20.3	46.2	33.6	86	149
06009	.0	.8	.8	.3	.3	43.8	33.1	14.0	79	121
12015	.0	.0	.7	.7	.7	25.0	58.3	16.0	83	144
18021	.0	.0	.0	.0	.0	24.6	52.6	22.8	84	114
TOT	0	1	11	146	230	114	83	522		



PERIOD: (PRIMARY) 1926-1972  
(OVER-ALL) 1858-1972

OCTOBER

AREA 0007 SARAWAK  
3.7N 111.0E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA	73	77	81	85	89	TOT	N	WD
TMP DIF	76	80	84	88	92		FOG	FOG
11/13	.0	.0	.0	.0	.2	1	.0	.2
7/8	.0	.0	.2	.0	.3	2	.0	.3
6	.0	.0	.0	.0	.3	2	.0	.3
5	.0	.0	.2	.2	.7	6	.0	1.0
4	.0	.0	.5	.5	.7	10	.0	1.7
3	.0	.0	.3	.7	.3	8	.0	1.3
2	.0	.0	.8	2.5	.2	21	.0	3.5
1	.0	.0	2.3	3.2	.0	33	.0	5.5
0	.0	.3	10.8	1.2	.0	74	.0	12.3
-1	.0	.2	10.9	.5	.0	70	.0	11.6
-2	.0	2.3	18.4	.5	.0	128	.2	21.1
-3	.0	2.3	11.3	.0	.0	82	.0	13.6
-4	.0	6.1	6.3	.0	.0	79	.0	12.4
-5	.0	3.5	2.0	.0	.0	33	.0	5.5
-6	.2	5.5	.2	.0	.0	35	.0	5.8
-7/-8	.7	2.2	.3	.0	.0	19	.0	3.2
-9/-10	.2	.2	.0	.0	.0	2	.0	.3
-11/-13	.3	.0	.0	.0	.0	2	.0	.3
TOTAL	8	136	389	13	603	1	602	
PCT	1.3	22.6	64.5	9.1	2.5	100.0	.2	99.8

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.3	.0	.0	.0	.0	1.3	2.2	1.1	.0	.0	.0	.0	3.2
1-2	.5	1.1	.0	.0	.0	.0	1.6	1.4	7.6	.0	.0	.0	.0	9.2
3-4	.0	.7	.0	.0	.0	.0	.7	.0	1.4	.7	.0	.0	.0	2.2
5-6	.0	.7	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	3.8	.0	.0	.0	.0	4.3	3.8	10.1	.7	.0	.0	.0	14.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	2.9	.5	.0	.0	.0	.0	3.4	.9	.0	.0	.0	.0	.0	.9
1-2	.0	.7	.0	.0	.0	.0	.7	.7	1.4	.2	.0	.0	.0	2.3
3-4	.0	.7	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.0	.7
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.9	2.0	.0	.0	.0	.0	4.9	1.6	1.4	.9	.0	.0	.0	4.0

PERIOD: (OVER-ALL) 1963-1972

OCTOBER

AREA 0007 SARAWAK  
3.7N 111.0E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.7	.0	.0	.0	.0	1.3	1.6	.0	.2	.0	.0	.0	1.8
1-2	.0	7.9	1.6	.0	.0	.0	9.7	.0	5.2	3.8	.0	.0	.0	9.0
3-4	.0	.7	.0	.0	.0	.0	1.4	.0	2.2	.7	.0	.0	.0	2.9
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.5
7	.0	.0	.5	.0	.0	.0	.5	.0	.0	2.5	.0	.0	.0	2.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.2	.7	.0	.0	.0	.9
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	9.4	3.1	.0	.0	.0	12.9	1.6	7.6	6.5	.0	.0	.0	17.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	2.0	2.2	.5	.0	.0	.0	4.7	.0	1.4	.0	.0	.0	.0	1.4	
1-2	.0	9.5	.7	.0	.0	.0	10.3	.7	4.7	.0	.0	.0	.0	5.4	
3-4	.0	2.0	1.4	.0	.0	.0	3.4	.0	.9	.0	.0	.0	.0	.9	
5-6	.0	.7	1.6	.0	.0	.0	2.3	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.5	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.5	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.0	14.9	4.9	.0	.0	.0	21.8	.7	7.0	.0	.0	.0	.0	7.7	87.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	23.4	7.1	.7	.0	.0	.0	31.2	
1-2	3.5	37.6	6.4	.0	.0	.0	47.5	
3-4	.0	8.5	3.5	.0	.0	.0	12.1	
5-6	.0	1.4	2.8	.0	.0	.0	4.2	
7	.0	.0	3.5	.0	.0	.0	3.5	
8-9	.0	.7	.7	.0	.0	.0	1.4	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	27.0	55.3	17.7	.0	.0	.0	100.0	141

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	12.5	29.4	15.8	2.3	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	185	2
6-7	.0	3.3	6.9	4.3	1.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	49	4
8-9	.0	.0	2.0	2.3	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16	5
10-11	.0	.3	.0	.3	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	8
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDEX	11.2	2.3	1.7	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	49	1
TOTAL	72	107	80	31	10	2	1	0	0	0	0	0	0	0	0	0	0	0	0	303	2
PCT	23.8	33.3	26.4	10.2	3.3	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1928-1972  
(OVER-ALL) 1882-1972

NOVEMBER

AREA 0007 SARAWAK  
3.7N 111.0E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHMR	DRFL	FRZG PCPN	SNOW	OTHER PRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG NEA
N	7.5	2.8	2.2	.0	.0	.0	.0	12.6	1.0	4.7	.8	.0	.0	.0	82.6
NE	5.1	1.8	.2	.0	.0	.0	.0	7.0	1.4	1.4	.0	.0	.7	.0	89.4
E	9.9	3.6	1.8	.0	.0	.0	.0	15.3	1.4	3.1	.0	.0	.0	.0	77.9
SE	11.9	4.1	.0	.0	.0	.0	.0	16.0	2.6	1.5	.0	.0	.0	.0	80.9
S	18.1	1.3	1.3	.0	.0	.0	.0	19.5	3.7	3.7	.0	.0	.0	.0	73.2
SW	15.1	6.0	1.7	.0	.0	.0	.0	22.8	3.9	2.6	.0	.0	1.7	.0	69.0
W	13.4	2.9	1.5	.0	.0	.0	.0	17.8	3.4	1.5	.0	.0	.4	.0	76.8
NW	11.0	1.8	.8	.0	.0	.0	.0	13.6	.0	2.6	.0	.0	.0	.0	83.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
CALM	4.1	2.0	.0	.0	.0	.0	.0	6.1	.0	4.1	.0	.0	.0	.0	89.8
TOT PCT	10.6	2.9	1.2	.0	.0	.0	.0	14.6	2.0	3.0	.1	.0	.5	.0	80.3
TOT OBS:	864														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHMR	ORZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG NEA
00003	14.2	4.6	1.7	.0	.0	.0	.0	20.0	2.9	1.2	.0	.0	.4	.0	75.8
06009	4.2	1.4	1.4	.0	.0	.0	.0	7.0	.7	.9	.0	.0	.5	.0	87.0
12015	6.6	1.8	.9	.0	.0	.0	.0	9.3	.0	5.3	.4	.0	.0	.0	85.9
18021	17.8	4.6	.5	.0	.0	.0	.0	22.3	.5	5.1	.0	.0	1.0	.0	71.1
TOT PCT TOT OBS:	10.6 879	3.1	1.1	.0	.0	.0	.0	14.7	2.0	3.1	.1	.0	.5	.0	80.1

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	3.1	9.3	1.5	.0	.0	.0		13.9	6.3		10.0	8.2	9.6	18.5	15.5	25.3	12.1	15.4
NE	4.2	10.5	1.5	.0	.0	.0		18.1	6.2		16.7	16.3	14.2	18.4	16.5	17.9	17.1	14.3
E	1.9	4.4	.5	.1	.0	.0		7.0	5.6		11.6	10.0	7.4	3.4	4.3	5.5	6.3	6.3
SE	1.2	3.8	.4	.0	.0	.0		5.3	6.1		8.0	8.4	5.6	2.7	2.0	4.7	3.2	8.3
S	1.3	5.4	1.8	.1	.0	.0		8.5	8.0		14.2	15.3	13.0	3.4	4.0	4.2	4.0	9.0
SW	.9	8.6	3.5	.1	.0	.0		13.0	8.8		16.8	16.1	16.2	10.9	9.9	6.3	15.1	11.0
W	1.7	9.8	2.5	.1	.0	.0		14.0	7.6		8.0	11.3	11.7	16.4	22.2	15.3	15.5	11.6
NW	2.8	9.8	1.3	.1	.0	.0		14.0	6.8		6.0	10.3	13.7	21.4	18.1	18.9	14.4	14.5
VAR	.0	.1	.0	.0	.0	.0		.1	5.0		.0	.0	.0	.0	.0	.0	.6	.0
CALM	8.0							8.0	.0		8.6	4.2	8.1	5.9	9.7	2.1	11.5	9.6
TOT OBS	273	672	141	5	1	0	1092		6.4		187	95	148	131	176	95	124	138
TOT PCT	25.0	61.5	12.9	.5	.1	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL Obs	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	9.3	4.3	.3	.0	.0		13.9	6.3	9.4	13.8	18.9	13.8	
NE	10.4	5.5	.3	.0	.0		18.1	6.2	16.6	15.2	17.0	15.7	
E	5.2	1.7	.1	.0	.0		7.0	5.6	11.1	5.8	4.6	6.3	
SE	3.3	2.0	.0	.0	.0		5.3	6.1	8.2	4.2	3.0	5.9	
S	3.5	4.8	.2	.0	.0		8.5	8.0	14.5	5.5	4.1	6.6	
SW	4.5	8.1	.4	.0	.0		13.0	8.8	16.8	13.7	8.7	13.0	
W	7.1	8.5	.5	.0	.0		14.0	7.6	9.1	12.9	19.7	13.5	
NW	8.3	9.3	.3	.0	.1		14.0	6.8	7.4	17.3	17.1	14.5	
VAR	.1	.0	.0	.0	.0		.1	5.0	.0	.0	.0	.4	
CALM	8.0						8.0	.0	7.1	7.5	7.0	10.4	
TOT OBS	651	417	22	1	1	1092		6.4	482	279	271	240	
TOT PCT	59.6	38.2	2.0	.1	.1		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1928-1972  
(OVER-ALL) 1882-1972

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AREA 0007 SARAWAK  
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47	48+			
00003	7.1	17.0	57.6	15.6	.7	.0	.0	6.9	100.0	282
06009	7.3	16.8	60.6	14.7	.0	.4	.0	6.4	100.0	279
12015	7.0	16.2	64.9	11.4	.4	.0	.0	6.5	100.0	271
18021	10.4	18.1	61.2	9.6	.8	.0	.0	5.9	100.0	260
TOT	87	186	672	141	5	1	0	6.4		1092
PCT	8.0	17.0	61.5	12.8	.5	.1	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & NBSCD	TOTAL CBS	MEAN CLOUD COVER
N	1.4	3.0	3.1	3.6		5.3
NE	1.4	5.1	9.1	2.4		5.3
E	.0	1.9	3.7	.0		5.4
SE	.0	.2	2.0	1.5		6.8
S	.3	.9	4.0	3.4		6.7
SW	.5	2.2	7.1	5.9		6.4
W	1.7	3.7	6.1	4.3		5.6
NW	.6	1.3	5.7	5.2		6.5
VAR	.0	.0	.0	.0		.0
CALM	2.6	1.8	2.0	1.3		4.1
TOT OBS	33	79	108	112	392	5.8
TOT PCT	8.4	20.2	42.9	28.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.4	1.3	1.5	.4	.0	.0	.0	.0	7.4	
.3	.0	.6	1.5	3.7	.4	.8	.0	.0	.1	10.4	
.0	.0	.0	.7	1.3	.4	.0	.0	.0	.4	3.6	
.0	.0	.6	.3	1.4	.3	.3	.0	.0	.0	.9	
.0	.0	.2	1.2	2.4	.4	.5	.0	.3	.0	3.6	
.0	.0	.3	3.3	2.9	1.1	.3	.3	.0	.0	7.7	
.2	.0	.0	2.0	1.9	1.2	.8	.0	.0	.0	9.6	
.3	.0	.6	2.0	1.4	.6	.5	.0	.0	.0	7.5	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.3	.3	.8	.0	.0	.0	.0	.0	6.4	
3	0	11	49	68	21	12	1	1	2	224	392
.8	.0	2.8	12.5	17.3	5.4	3.1	.3	.3	.5	57.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.7	.7	.7	.7	.7	.7	.7	.7
>5000	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
>3500	2.7	3.7	4.0	4.0	4.0	4.0	4.0	4.0
>2000	7.0	9.0	9.2	9.2	9.2	9.2	9.2	9.2
>1000	17.5	24.2	25.4	26.2	26.2	26.2	26.2	26.2
>600	23.4	32.9	36.7	38.4	38.4	38.7	38.7	38.7
>300	24.2	34.9	38.9	41.6	41.6	41.9	41.9	41.9
>150	24.2	34.9	38.9	41.6	41.6	41.9	41.9	41.9
>0	24.2	34.9	38.9	42.4	42.4	42.6	42.6	42.6
TOTAL	97	140	159	170	170	171	171	171

TOTAL NUMBER OF OBS: 401

PCT FREQ NH <5/8: 57.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
2.7	7.2	16.9	17.8	12.6	9.0	11.2	10.6	11.5	.7	445

PERIOD: (PRIMARY) 1928-1972  
(OVER-ALL) 1882-1972

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
1<2	PCP	.3	.3	.2	*	.2	.3	.3	.2	.0	.1	1.9	
	NO PCP	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.1	
	TOT %	.3	.3	.2	*	.2	.3	.3	.2	.0	.1	2.0	
2<5	PCP	.2	.3	.1	.1	.1	.9	.9	.3	.0	.1	2.5	
	NO PCP	.1	.4	.0	*	.3	.4	.3	.3	.0	.0	1.9	
	TOT %	.3	.6	.1	.1	.4	.9	1.3	.7	.0	.1	4.4	
5<10	PCP	1.3	.4	.5	.5	1.0	2.1	1.0	1.3	.0	.1	8.3	
	NO PCP	5.1	3.6	1.2	2.3	1.9	2.9	4.0	4.3	.0	.9	28.4	
	TOT %	6.4	4.1	1.8	2.9	2.9	5.0	5.0	5.6	.0	1.0	34.7	
10+	PCP	.1	.2	.2	.2	.3	.7	.5	.2	.0	.0	1.9	
	NO PCP	7.2	10.9	4.1	2.3	4.8	7.1	9.0	7.9	.1	4.4	56.8	
	TOT %	7.3	11.1	4.3	2.5	5.1	7.7	9.5	8.2	.1	4.4	58.7	
TOT OBS													
TOT PCT													
		14.3	16.0	5.4	5.6	8.6	13.9	19.1	14.7	.1	5.7	100.0	864

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.2	.0	.0	.0	.0	.0	.2	.0	.0	.3	
	11-21	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.2	.1	.0	.0	.0	.0	.2	.0	.0	.4	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
1<2	0-3	.0	.1	.1	.0	.0	.0	.1	.1	.0	.1	.3	
	4-10	.4	.2	.2	.0	.1	.0	.1	.0	.0	.0	1.0	
	11-21	.0	.0	.0	*	.1	.2	.1	.1	.0	.0	.5	
	22+	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	.4	.2	.2	*	.2	.3	.3	.2	.0	.1	1.9	
2<5	0-3	.0	.2	.0	.0	.0	.1	.2	.2	.0	.3	1.1	
	4-10	.2	.2	.2	.1	.1	.3	.6	.6	.0	.0	2.3	
	11-21	.2	.1	.0	.1	.3	.5	.6	.1	.0	.0	1.9	
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.4	.6	.2	.1	.5	.9	1.4	.9	.0	.3	5.4	
5<10	0-3	1.8	1.2	.5	.5	.2	.3	1.0	1.3	.0	1.0	7.9	
	4-10	3.7	2.2	1.1	1.9	1.8	3.4	3.1	3.7	.0	.0	20.0	
	11-21	.4	.4	.1	.3	.7	1.1	.6	.4	.0	.0	3.9	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	6.0	3.8	1.6	2.7	2.7	4.7	4.7	5.4	.0	1.0	32.7	
10+	0-3	1.3	3.1	1.4	.9	1.2	.6	.6	1.3	.0	5.8	16.2	
	4-10	5.2	8.3	2.5	1.9	3.1	4.8	6.3	5.8	.1	.0	36.1	
	11-21	.8	1.0	.4	.0	.8	1.6	1.2	.9	.0	.0	6.8	
	22+	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.2	
	TOT %	7.4	10.4	4.4	2.8	5.1	7.1	8.2	8.0	.1	5.8	59.3	
TOT OBS													
TOT PCT													
		14.3	15.2	6.6	5.7	8.5	13.0	14.6	14.8	.1	7.2	100.0	928

NOVEMBER

PERIOD: (PRIMARY) 1928-1977  
(DVPY-ALL) 1882-1972

ARE: 0007 SARAWAK  
3.7N 111.8E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH >4/8) AND  
OCCURRENCE OF NH <3/8 BY HOUR

HOUR (GMT)	000	15L	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <3/8 ANY HGT	TOTAL OBS
00003	.0	.0	5.6	15.3	21.8	5.6	4.8	.8	.0	.8	56.6	45.2	124
06009	.0	.0	2.6	12.1	12.1	5.6	1.9	.0	.9	.0	35.5	64.5	107
12015	.9	.0	.0	6.5	14.0	5.6	2.4	.0	.0	.9	30.8	69.2	107
18021	2.3	.0	3.4	12.6	14.9	2.3	1.1	.0	.0	.0	36.8	63.2	87
TOT	3	0	13	50	68	21	13	1	1	2	174	254	425
PCT	.7	.0	3.1	11.8	16.0	4.9	3.3	.2	.2	.5	40.2	59.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.8	.4	.8	4.8	35.3	57.8	749
06009	.4	.0	1.3	2.1	24.5	67.7	235
12015	.4	.0	.8	5.8	32.9	60.0	240
18021	.9	.0	5.5	9.1	32.9	51.6	219
TOT	6	1	19	51	306	380	943
PCT	.6	.1	2.0	5.4	32.4	39.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET) NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND/OR ANY HGT	NH <3/8 ANY HGT	TOTAL OBS
00003	.0	6.6	24.0	35.2	43.8	121
06009	.0	3.0	16.8	20.8	62.4	101
12015	1.0	1.0	10.0	24.0	66.0	100
18021	2.5	6.3	24.1	16.5	59.3	79
TOT	3	17	75	97	219	401
PCT	.7	4.2	18.7	24.2	57.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.2	.6	.0	.0	4	.8
85/89	.0	.0	.0	.0	.8	5.2	2.6	1.4	49	9.8
80/84	.0	.0	.0	.0	1.0	17.9	36.1	14.3	345	69.3
75/79	.0	.0	.0	.0	.0	.8	6.4	12.9	100	20.1
TOTAL	0	0	0	0	9	122	225	142	498	100.0
PCT	.0	.0	.0	.0	1.8	24.5	45.2	28.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.4	.3	.0	.0	.0	.0	.0	.2	.0	.0
85/89	1.0	1.5	.6	.5	.6	1.3	1.2	2.6	.0	.8
80/84	9.5	11.2	4.6	3.6	4.3	9.6	10.6	10.2	.0	5.6
75/79	1.9	2.2	.9	2.0	2.7	4.4	3.4	2.0	.2	.4
TOTAL	12.7	15.1	6.0	6.1	7.3	15.4	13.1	15.0	.2	7.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	89	88	85	81	77	75	72	81.0	271
06009	94	90	88	82	77	75	72	82.6	255
12015	88	86	84	81	77	75	73	81.2	267
18021	85	84	83	81	77	75	73	80.2	265
TOT	94	88	85	81	77	75	72	81.2	1058

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.0	22.1	46.2	51.7	85	145		
06009	.0	.0	7.5	43.5	34.9	15.1	80	106		
12015	.0	.0	1.4	20.4	54.9	23.2	84	142		
18021	.0	.0	.0	17.9	39.3	42.7	87	117		
TOT	0	0	10	127	228	145	84	510		

PERIOD: (PRIMARY) 1926-1972  
(OVER-ALL) 1882-1972

NOVEMBER

AREA 0007 SARAWAK  
3.7N 111.8E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	92	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
7/8	.0	.0	.0	.0	.1	.1	.1	2	.0	.3
5	.0	.0	.0	.1	.0	.3	.0	3	.0	.4
4	.0	.0	.0	.3	.5	.3	.0	8	.0	1.0
3	.0	.0	.0	.1	.6	.3	.0	8	.0	1.0
2	.0	.0	.0	2.6	2.6	.1	.0	41	.0	5.3
1	.0	.0	.1	1.6	.9	.0	.0	70	.0	2.6
0	.0	.0	.6	10.9	1.9	.0	.0	104	.0	13.3
-1	.0	.0	.8	5.7	.5	.0	.0	34	.0	7.0
-2	.0	.1	3.8	19.8	.4	.0	.0	186	.1	24.0
-3	.0	.0	2.7	5.2	.3	.0	.0	63	.0	8.2
-4	.0	.4	9.6	8.7	.0	.0	.0	244	.0	18.7
-5	.1	.4	6.7	1.7	.0	.0	.0	64	.0	8.3
-6	.0	.7	3.1	.3	.0	.0	.0	30	.0	3.9
-7/-8	.1	1.9	2.5	.3	.0	.0	.0	37	.0	4.8
-9/-10	.0	.3	.4	.0	.0	.0	.0	5	.0	.6
-11/-13	.0	.1	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	2	29	234	447	60	8	1	771	1	770
PCT	.3	3.9	30.4	56.7	7.8	1.0	.1	100.0	.1	99.9

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N							PCT	NE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.6	1.9	.0	.0	.0	.0		2.5	.8	1.9	.0	.0	.0	.0		2.6
1-2	.0	4.5	.0	.0	.0	.0		4.5	2.7	5.6	.6	.0	.0	.0		8.7
3-4	.0	.9	.6	.0	.0	.0		1.6	.0	5.4	2.5	.0	.0	.0		7.9
5-6	.0	.5	1.1	.0	.0	.0		1.6	.0	.2	1.2	.0	.0	.0		1.4
7	.0	.0	.6	.0	.0	.0		.6	.0	.0	.0	.0	.0	.0		.0
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.5	.0	.0	.0	.0		.5	.0	.2	.0	.0	.0	.0		.2
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.7	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.6	8.2	2.3	.0	.0	.0		11.2	3.3	13.2	4.3	.0	.0	.0		20.8

HGT	E							PCT	SE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	1.1	.0	.0	.0	.0	.0		1.1	.8	.0	.0	.0	.0	.0		.8
1-2	.6	1.1	.6	.0	.0	.0		2.3	.9	.6	.0	.0	.0	.0		1.6
3-4	.0	1.6	.0	.0	.0	.0		1.6	.0	.8	.0	.0	.0	.0		.8
5-6	.0	1.1	1.2	.0	.0	.0		2.3	.0	.0	.0	.0	.0	.0		.0
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	1.7	2.7	1.9	.0	.0	.0		7.3	1.7	1.4	.0	.0	.0	.0		3.1

PERIOD: (OVER-ALL) 1963-1972

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AREA 0007 SARAWAK  
3.7N 111.2E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	1.1	.6	.0	.0	.0	.0		1.7	.0	.6	.0	.0	.0	.0		.6
1-2	.9	1.9	.6	.0	.0	.0		3.4	.0	6.5	.8	.0	.0	.0		7.3
3-4	.0	2.2	.0	.0	.0	.0		2.2	.6	1.1	1.4	.0	.0	.0		3.1
5-6	.0	.6	.0	.0	.0	.0		.6	.0	1.2	2.5	.0	.0	.0		3.7
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	2.0	5.3	.6	.0	.0	.0		7.9	.6	9.5	4.7	.0	.0	.0		14.8

HGT	W							PCT	NW							TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.6	1.2	.6	.0	.0	.0		2.5	1.2	.0	.0	.0	.0	.0		1.2
1-2	.0	5.7	2.3	.0	.0	.0		8.1	1.9	3.3	.6	.0	.0	.0		5.7
3-4	.0	1.6	1.1	.0	.0	.0		2.6	.0	1.4	1.2	.0	.0	.0		2.6
5-6	.0	.6	.5	.0	.0	.0		1.1	.0	.2	.9	.0	.0	.0		1.1
7	.0	.6	.6	.6	.0	.0		1.9	.0	.0	1.2	.0	.0	.0		1.2
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.6	9.8	5.1	.6	.0	.0		16.1	3.1	4.8	4.0	.0	.0	.0		93.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	13.5	6.1	.6	.0	.0	.0	20.2	0.0
1-2	6.7	29.4	5.5	.0	.0	.0	41.7	0.0
3-4	.6	14.7	6.7	.0	.0	.0	22.1	0.0
5-6	.0	4.3	7.4	.0	.0	.0	11.7	0.0
7	.0	.6	2.5	.6	.0	.0	3.7	0.0
8-9	.0	.0	.0	.0	.0	.0	.0	0.0
10-11	.0	.6	.0	.0	.0	.0	.6	0.0
12	.0	.0	.0	.0	.0	.0	.0	0.0
13-16	.0	.0	.0	.0	.0	.0	.0	0.0
17-19	.0	.0	.0	.0	.0	.0	.0	0.0
20-22	.0	.0	.0	.0	.0	.0	.0	0.0
23-25	.0	.0	.0	.0	.0	.0	.0	0.0
26-32	.0	.0	.0	.0	.0	.0	.0	0.0
33-40	.0	.0	.0	.0	.0	.0	.0	0.0
41-48	.0	.0	.0	.0	.0	.0	.0	0.0
49-60	.0	.0	.0	.0	.0	.0	.0	0.0
61-70	.0	.0	.0	.0	.0	.0	.0	0.0
71-86	.0	.0	.0	.0	.0	.0	.0	0.0
87+	.0	.0	.0	.0	.0	.0	.0	0.0
TOT PCT	20.9	59.8	22.7	.6	.0	.0	100.0	163

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
<6	2.8	22.3	15.4	4.1	1.6	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	148	3
6-7	.3	6.0	13.8	8.8	1.9	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100	4
8-9	.0	.0	1.3	5.0	2.8	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	31	6
10-11	.0	.3	.6	.3	.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	5
12-13	.0	.0	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	4
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0
INDEX	6.3	2.2	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	29	1
TOTAL	30	98	103	59	23	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	319	3
PCT	7.4	30.7	32.3	18.5	7.2	1.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	



PERIOD: (PRIMARY) 1933-1972  
(OVER-ALL) 1874-1972

DECEMBER

AREA 0007 SARAWAK  
3.7N 111.7E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA		
N	5.6	1.9	.0	.0	.0	.0	.0	7.5	4.1	1.5	.2	.0	.0	.0	.0	86.7	
NE	8.1	5.2	.7	.0	.0	.0	.0	13.6	3.5	1.7	.2	.0	.4	.0	.0	80.6	
E	8.5	7.3	.0	.0	.0	.0	.0	15.8	8.5	.0	.0	.0	.0	.0	.0	75.7	
SE	16.4	.0	.0	.0	.0	.0	.0	16.4	.9	.0	.0	.0	.0	.0	.0	82.7	
S	19.6	.0	.0	.0	.0	.0	.0	19.6	5.6	.0	.0	.0	.0	.0	.0	74.8	
SW	13.3	4.8	2.4	.0	.0	.0	.0	20.5	3.0	.0	.0	.0	.0	.0	.0	76.5	
W	6.4	3.7	4.3	.0	.0	.0	.0	12.2	7.4	.0	.0	.0	.0	.0	.0	80.3	
NW	13.4	.3	3.3	.0	.0	.0	.0	15.8	4.9	2.7	.0	.0	1.1	.0	.0	75.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	13.2	.0	.0	.0	.0	.0	.0	13.2	.0	2.6	.0	.0	.0	.0	.0	84.2	
TOT PCT	9.3	3.1	1.0	.0	.0	.0	.0	13.1	4.1	1.4	.1	.0	.3	.0	.0	81.0	
TOT OBS:	796																

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GHT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA		
0000	13.9	3.8	2.4	.0	.0	.0	.0	19.2	5.3	1.0	.0	.0	.5	.0	.0	74.0	
0600	8.2	3.6	1.0	.0	.0	.0	.0	11.8	5.1	.0	.0	.0	.0	.0	.0	83.1	
1200	4.5	1.5	.5	.0	.0	.0	.0	6.5	2.5	1.5	.5	.0	.5	.0	.0	88.5	
1800	10.0	4.7	.5	.0	.0	.0	.0	15.2	4.3	2.8	.0	.0	.0	.0	.0	77.7	
TOT PCT	9.2	3.4	1.1	.0	.0	.0	.0	13.3	4.3	1.4	.1	.0	.2	.0	.0	80.7	
TOT OBS:	814																

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GHT)									
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21		
N	1.6	13.8	7.1	1.8	.1	.0		26.4	10.8		16.6	26.7	15.9	30.8	23.1	40.9	25.0	28.4		
NE	3.0	17.3	11.6	1.8	.3	.0		34.0	10.6		34.2	31.1	29.2	28.4	33.2	36.5	41.0	34.9		
E	.8	3.7	1.5	.0	.0	.0		5.8	8.4		8.4	9.3	10.3	4.5	2.5	6.2	1.6	6.0		
SE	.7	2.1	.2	.0	.0	.0		4.0	6.2		6.4	6.4	6.9	1.7	.6	1.2	1.2	7.8		
S	.6	2.1	1.4	.0	.0	.0		4.1	8.7		6.8	6.4	7.5	1.7	1.6	.6	3.3	3.2		
SW	.7	2.8	1.1	.2	.0	.0		4.8	8.4		5.3	4.1	9.8	3.4	3.4	1.2	4.2	4.5		
W	.6	3.6	1.0	.1	.2	.0		5.4	9.3		4.5	2.3	5.3	8.3	9.1	4.1	6.8	.0		
NW	1.4	6.8	2.9	.8	.0	.0		11.9	9.5		10.3	11.3	10.0	14.3	17.2	8.2	11.3	10.8		
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0		
CALM	5.4							5.4	.0		7.5	2.3	5.0	6.8	7.2	1.2	5.6	4.3		
TOT OBS	137	567	285	49	7	0	1065		9.4		173	86	160	117	167	85	161	116		
TOT PCT	14.7	53.2	26.8	4.6	.7	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	7.3	12.3	4.3	.5	.0		24.4	10.8	20.0	22.2	29.1	26.4		
NE	9.7	19.3	4.2	.7	.0		34.0	10.6	33.2	29.9	35.6	38.4		
E	2.7	2.9	.4	.0	.0		5.9	8.4	8.7	7.9	3.8	3.4		
SE	2.5	1.5	.0	.0	.0		4.0	6.2	6.4	6.7	.8	4.0		
S	1.6	2.2	.3	.0	.0		4.1	8.7	6.7	5.1	1.3	3.2		
SW	2.2	2.3	.3	.0	.0		4.8	8.4	4.9	7.1	2.7	4.3		
W	1.9	3.1	.3	.2	.0		5.4	9.3	3.8	6.6	7.4	4.0		
NW	4.1	6.4	1.4	.0	.0		11.9	9.5	10.6	11.8	14.2	11.1		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	5.4						5.4	.0	5.8	5.8	5.2	5.1		
TOT OBS	398	533	119	15	0	1065		9.4	259	277	292	277		
TOT PCT	37.4	50.0	11.2	1.4	.0		100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1933-1972  
(OVER-ALL) 1874-1972

DECEMBER

AREA 0007 SARAWAK  
3.7N 111.7E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	5.8	8.5	52.1	27.0	5.4	1.2	.0	9.6	100.0	259
06009	5.8	13.0	52.0	24.5	4.3	.4	.0	8.7	100.0	277
12015	5.2	5.2	59.5	26.2	4.0	.0	.0	9.5	100.0	252
18021	5.1	10.1	49.8	29.2	4.7	1.1	.0	9.7	100.0	277
TOT	58	99	567	285	49	7	0	9.4		1065
PCT	5.4	9.3	53.2	26.8	4.6	.7	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 2	TOTAL	MEAN CLOUD COVER
N	2.1	4.7	7.6	7.1		5.5
NE	3.1	7.7	15.1	8.8		5.6
E	.5	.3	3.1	1.9		6.3
SE	.0	.2	1.4	1.3		6.7
S	.1	1.2	1.9	2.1		6.2
SW	.1	.2	3.1	2.4		6.7
W	.5	1.1	2.9	2.3		6.1
NW	.4	1.0	4.9	4.4		6.4
VAR	.0	.0	.0	.0		.0
CALM	1.2	1.8	1.8	1.6		2.0
TOT OBS	41	92	211	162	506	5.9
TOT PCT	8.1	18.2	41.7	32.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		OBS	
.0	.0	.2	1.6	4.6	2.7	.0	.0	.0	.0	12.5	
.4	.0	.4	3.7	6.0	2.2	.5	.4	.0	.0	20.8	
.0	.0	.1	1.1	.7	.5	.0	.0	.2	.0	3.1	
.2	.0	.0	.0	.6	.0	.3	.0	.0	.0	1.9	
.0	.0	.4	.3	1.0	.4	.3	.1	.0	.0	2.8	
.0	.0	.0	.8	2.2	.6	.3	.0	.0	.0	1.8	
.0	.0	.0	.7	2.1	1.0	.3	.1	.0	.0	2.5	
.0	.0	.8	2.0	2.7	.5	.2	.4	.0	.0	4.2	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.2	.0	.4	.0	.0	.6	.0	.0	.0	.0	4.2	
.4	.0	11	52	106	44	11	6	1	.0	271	506
.8	.0	2.2	10.3	20.9	8.7	2.2	1.2	.2	.0	53.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				OR			
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.0	.2	.2	.2	.2	.2	.2	.2
>5000	.8	1.2	1.2	1.2	1.2	1.2	1.2	1.2
>3500	1.7	3.1	3.1	3.1	3.3	3.3	3.3	3.3
>2000	7.3	11.6	12.1	12.1	12.3	12.3	12.3	12.3
>1000	19.7	30.3	32.6	32.6	33.1	33.1	33.1	33.1
>600	24.1	39.1	42.2	42.6	43.4	43.4	43.4	43.4
>300	25.2	40.8	44.1	44.5	45.5	45.5	45.5	45.5
>150	25.2	40.8	44.1	44.5	45.5	45.5	45.5	45.5
>0	25.6	41.2	44.7	45.1	46.1	46.1	46.1	46.1
TOTAL	133	214	232	234	239	239	239	239

TOTAL NUMBER OF OBS: 519

PCT FREQ NH <5/8: 54.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL
2.0	4.2	17.8	15.8	11.5	9.9	10.7	8.9	16.9	.7	550

PERIOD: (PRIMARY) 1939-1972  
(OVER-ALL) 1874-1972

DECEMBER

AREA 0007 SARAWAK  
3.7N 111.7E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
1/2<1	PCP	.0	.1	.1	.0	.1	.1	.1	.0	.0	.0	.6	
	NO PCP	.0	.1	.1	.0	.1	.0	.0	.0	.0	.0	.3	
	TOT %	.0	.2	.2	.0	.2	.2	.1	.0	.0	.0	.9	
1<2	PCP	.1	.3	.1	.0	.0	.1	.1	.2	.0	.0	.9	
	NO PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.1	.4	.1	.0	.0	.1	.1	.2	.0	.0	1.0	
2<5	PCP	.9	.9	.0	.3	.1	.4	.1	.3	.0	.1	3.1	
	NO PCP	.1	.3	.2	.1	.1	.0	.1	.0	.0	.0	1.0	
	TOT %	1.0	1.2	.2	.4	.2	.4	.2	.4	.0	.1	4.1	
5<10	PCP	.4	1.9	.5	.3	.4	.1	.3	.4	.0	.0	4.4	
	NO PCP	7.3	7.7	1.4	.7	.6	1.4	1.1	3.0	.0	.4	23.7	
	TOT %	7.9	9.6	1.9	1.0	1.0	1.5	1.4	3.4	.0	.4	28.1	
10+	PCP	.4	1.4	.1	.0	.3	.3	.1	.4	.0	.3	3.9	
	NO PCP	15.4	21.1	3.0	2.0	2.8	2.7	4.0	6.6	.0	3.8	61.8	
	TOT %	16.2	22.5	3.1	2.0	3.1	3.0	4.1	7.4	.0	4.3	65.7	
TOT OBS													796
TOT PCT													29.3 33.8 5.6 3.5 4.5 5.2 5.9 11.5 .0 4.8 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.2	.1	.0	.1	.0	.1	.0	.0	.0	.3	
	11-21	.0	.0	.1	.0	.1	.1	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.2	.0	.2	.1	.1	.0	.0	.0	.6	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.3	.0	.0	.0	.1	.1	.1	.0	.0	.6	
	11-21	.1	.0	.1	.0	.0	.0	.0	.1	.0	.0	.3	
	22+	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.3	
	TOT %	.1	.6	.1	.0	.0	.1	.1	.2	.0	.0	1.4	
2<5	0-3	.1	.0	.0	.0	.1	.0	.1	.0	.0	.1	.3	
	4-10	.0	.9	.2	.3	.0	.2	.2	.3	.0	.0	2.9	
	11-21	.0	.6	.1	.0	.1	.2	.0	.2	.0	.0	1.7	
	22+	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.3	
	TOT %	1.6	1.7	.3	.3	.2	.4	.3	.5	.0	.1	5.5	
5<10	0-3	.4	.8	.1	.1	.1	.2	.0	.3	.0	.3	2.3	
	4-10	2.7	3.3	1.0	.7	.3	1.0	.9	2.1	.0	.0	12.2	
	11-21	3.7	4.3	.6	.2	.4	.2	.2	.3	.0	.0	9.9	
	22+	.8	.8	.0	.0	.0	.1	.2	.3	.0	.0	2.3	
	TOT %	7.6	9.2	1.7	1.0	.8	1.5	1.3	3.2	.0	.3	26.7	
10+	0-3	1.0	2.6	.5	.3	.6	.6	.4	1.3	.0	4.4	11.6	
	4-10	11.0	11.8	1.9	1.9	1.6	1.7	2.7	3.8	.0	.0	36.4	
	11-21	3.0	7.2	.8	.0	.9	.7	.8	2.4	.0	.0	15.8	
	22+	.7	.7	.0	.0	.0	.0	.1	.1	.0	.0	1.6	
	TOT %	15.7	22.2	3.1	2.3	3.1	3.0	4.0	7.6	.0	4.4	65.8	
TOT OBS													860
TOT PCT													29.0 34.1 5.5 3.6 4.4 5.2 5.8 11.6 .0 4.9 100.0

DECEMBER

PERIOD: (PRIMARY) 1933-1972  
(OVER-ALL) 1874-1972

AREA 0007 SARAWAK  
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 289	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.7	.0	2.9	11.4	24.3	7.1	3.6	1.4	.7	.0	52.1	47.9	140
06009	.0	.0	1.5	6.1	23.5	13.6	.8	2.3	.0	.0	47.7	52.3	132
12015	.8	.0	2.3	9.2	16.2	7.7	1.5	.8	.0	.0	38.5	61.5	130
18021	1.5	.0	1.5	12.9	16.7	6.8	2.3	.0	.0	.0	41.7	58.3	132
TOT	4	0	11	53	108	47	11	6	1	0	241	293	534
PCT	.7	.0	2.1	9.9	20.2	8.8	2.1	1.1	.2	.0	45.1	54.9	100.0

TABLE 11

PERCENT FREQUENCY /5BY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.5	1.8	1.8	5.0	27.4	63.5	219
06009	.0	.0	.9	6.9	22.0	70.2	218
12015	.0	.5	.9	5.2	27.8	65.6	212
18021	.0	.9	2.6	5.2	28.8	62.4	229
TOT	1	7	14	49	233	374	878
PCT	.1	.8	1.6	5.6	26.5	63.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF V5BY (NH) AND/OR  
CEILING HGT (FEET) NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	4.4	20.0	34.1	45.9	135
06009	.0	1.6	11.9	37.3	50.8	126
12015	.8	3.1	14.0	24.8	61.2	129
18021	1.6	4.7	19.4	24.8	55.8	129
TOT	3	18	85	157	277	519
PCT	.6	3.5	16.4	30.3	53.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.2	.0	.0	.0	1	.2
85/89	.0	.0	.0	.2	1.1	2.3	.2	.2	18	4.1
80/84	.0	.0	.0	.0	1.8	17.9	34.7	10.4	286	64.9
75/79	.0	.0	.0	.0	.0	.9	14.5	15.0	134	30.4
70/74	.0	.0	.0	.0	.0	.0	.0	.5	2	.5
TOTAL	0	0	0	1	14	93	218	115	441	100.0
PCT	.0	.0	.0	.2	3.2	21.1	49.4	26.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
85/89	.0	.7	.6	.2	.7	.2	.0	.1	.0	.7
80/84	14.7	26.6	3.1	1.8	2.0	3.2	4.5	6.3	.0	2.7
75/79	6.9	8.0	.8	.8	2.2	1.8	1.2	4.9	.0	3.9
70/74	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0
TOTAL	22.6	35.3	4.8	2.8	5.0	5.5	5.7	11.3	.0	7.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	86	84	81	76	74	73	80.3	257
06009	91	88	86	81	76	73	75	81.3	278
12015	85	84	84	81	77	73	72	80.6	253
18021	85	84	83	80	76	73	70	79.8	284
TOT	91	86	84	81	76	75	70	80.5	1072

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	1.7	13.7	53.0	31.6	86	117		
06009	.0	.0	9.3	30.6	34.3	25.9	83	108		
12015	.0	.0	.9	23.9	53.1	22.1	84	113		
18021	.0	.8	1.7	17.8	55.1	24.6	85	118		
TOT	0	1	15	97	224	119	85	456		

DECEMBER

PERIOD: (PRIMARY) 1933-1972  
(OVER-ALL) 1874-1972

TABLE 17

AREA 0007 SARAWAK  
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PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	WD FOG
6	.0	.0	.0	.0	.1	.0	1	.0	.1
5	.0	.0	.1	.0	.5	.1	6	.0	.8
4	.0	.0	.1	.7	.5	.1	9	.0	1.2
3	.0	.0	.0	.9	.3	.0	9	.0	1.2
2	.0	.0	.7	3.4	.9	.1	38	.0	5.1
1	.0	.0	1.1	2.4	.3	.0	28	.0	3.8
0	.1	.0	6.3	15.6	.1	.0	150	.0	20.2
-1	.0	.3	4.3	7.0	.0	.0	86	.0	11.6
-2	.0	.3	9.0	18.1	.3	.0	191	.1	25.5
-3	.0	.3	4.4	3.4	.3	.0	62	.0	8.3
-4	.0	.9	7.3	2.6	.0	.0	80	.0	10.8
-5	.0	1.1	4.2	.9	.0	.0	44	.0	5.9
-6	.0	.5	1.2	.1	.0	.0	14	.0	1.9
-7/-8	.0	.9	1.6	.3	.0	.0	21	.0	2.8
-9/-10	.0	.4	.3	.0	.0	.0	5	.0	.7
TOTAL	1	35	267	395	3	744	1	743	
PCT	.1	4.7	28.6	53.1	3.1	.4	100.0	.1	99.9

PERIOD: (OVER-ALL) 1962-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.5	2.1	.0	.0	.0	.0	2.6	2.2	4.7	.0	.0	.0	.0	5.0
1-2	.0	3.1	.0	.0	.0	.0	3.1	1.0	5.0	4.8	.0	.0	.0	10.8
3-4	.0	3.9	3.6	.7	.0	.0	8.2	.0	2.1	10.3	.7	.0	.0	13.0
5-6	.0	.5	.0	.0	.0	.0	.5	.0	3.4	9.8	1.4	.0	.0	14.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	2.1	.0	.0	2.7
8-9	.0	.7	.0	.0	.0	.0	.7	.0	.0	.7	.0	.0	.0	.7
10-11	.0	.0	.7	.0	.0	.0	.7	.0	.0	.7	.0	.0	.0	.7
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	10.3	4.3	.7	.0	.0	15.8	3.9	13.2	26.9	4.1	.0	.0	47.4

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.7	.7	.0	.0	.0	.0	1.4
1-2	1.0	1.2	.0	.0	.0	.0	2.2	.0	1.5	.0	.0	.0	.0	1.5
3-4	.0	.5	1.2	.0	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	1.2	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	1.7	2.4	.0	.0	.0	5.1	.7	2.2	.0	.0	.0	.0	2.9

PERIOD: (OVER-ALL) 1963-1972

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AREA 0007 SARAWAK  
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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.5	.0	.0	.0	.5	.0	3.1	.9	.0	.0	.0	3.9
3-4	.0	.0	.5	.0	.0	.0	.5	.0	.7	.9	.0	.0	.0	1.5
5-6	.0	.0	.5	.0	.0	.0	.5	.0	.0	.2	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	1.5	.0	.0	.0	1.5	.0	3.8	1.9	.0	.0	.0	5.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.0	.0	.0	.0	.0	.0	1.0	1.7	.0	.0	.0	.0	.0	1.7	
1-2	.0	3.1	.7	.0	.0	.0	3.8	.0	1.5	.0	.0	.0	.0	1.5	
3-4	.0	2.1	.0	.0	.0	.0	2.1	.0	3.1	2.7	.0	.0	.0	5.8	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.0	5.1	.7	.0	.0	.0	6.8	1.7	4.8	2.7	.0	.0	.0	9.2	94.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	11.0	5.5	.0	.0	.0	.0	16.4	085
1-2	2.7	18.5	6.8	.0	.0	.0	28.1	
3-4	.0	12.3	19.2	1.4	.0	.0	32.9	
5-6	.0	4.1	11.6	1.4	.0	.0	17.1	
7	.0	.0	.7	2.1	.0	.0	2.7	
8-9	.0	.7	.7	.0	.0	.0	1.4	
10-11	.0	.0	1.4	.0	.0	.0	1.4	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	13.7	41.1	40.4	4.8	.0	.0	100.0	146

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.7	9.4	15.5	7.2	.8	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	138
6-7	.0	1.9	11.6	13.6	3.2	1.7	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	118
8-9	.0	.8	1.9	2.8	3.9	1.7	.8	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	46
10-11	.0	.3	.0	1.1	.8	.6	.6	.8	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19
12-13	.0	.0	.3	.0	.0	.3	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
INDET	2.5	2.6	1.9	1.1	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	36
TOTAL	26	38	113	93	32	14	11	6	6	0	0	0	0	0	0	0	0	0	0	0	361
PCT	7.2	10.1	31.3	25.8	8.9	4.4	3.0	1.7	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1926-1973  
(OVER-ALL) 1857-1973

ANNUAL

AREA 0007 SARAWAK  
3.7N 111.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG MEA
N	5.6	2.6	.8	.0	.0	.0	.0	9.0	2.7	4.6	.6	.0	.7	.1	82.9
NE	4.6	2.4	.6	.0	.0	.0	.0	7.6	2.3	3.2	.6	.0	.3	.0	86.1
E	3.4	1.7	2.4	.0	.0	.0	.0	9.4	2.5	1.5	.0	.0	1.2	.0	85.7
SE	6.8	2.1	2.1	.0	.0	.0	.0	11.0	2.4	1.6	.0	.0	.0	.0	85.3
S	9.5	3.2	2.2	.0	.0	.0	.0	14.8	4.4	3.2	.0	.0	.8	.0	77.1
SW	7.8	2.8	.9	.0	.0	.0	.0	11.6	2.3	1.8	.1	.0	.5	.1	84.1
W	10.1	2.6	2.1	.0	.0	.0	.0	14.7	3.3	3.2	.0	.0	.7	.0	78.2
NW	6.4	2.3	1.2	.0	.0	.0	.0	9.7	1.6	4.0	.0	.0	.7	.4	83.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.3
CALM	4.5	1.6	1.4	.0	.0	.0	.0	7.5	.3	3.6	1.0	.3	2.3	.0	85.0
TOT PCT DBSI	5.4	2.1	1.2	.0	.0	.0	.0	8.6	2.2	2.9	.3	.6	.8	.1	85.3
TOT DBSI	7927														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG MEA
00003	7.7	3.0	1.7	.0	.0	.0	.0	12.3	3.4	.9	.6	.1	.8	.0	82.2
06009	3.6	2.1	.9	.0	.0	.0	.0	6.4	2.7	.2	.0	.0	.7	.1	89.8
12015	3.8	.9	1.1	.0	.0	.0	.0	5.7	1.1	4.3	.3	.0	.0	.0	87.9
18021	6.3	2.4	1.3	.0	.0	.0	.0	10.0	1.6	6.8	.5	.0	.9	.1	80.4
TOT PCT TOT OBS:	5.4 8246	2.1	1.2	.0	.0	.0	.0	8.6	2.2	2.9	.4	.6	.8	.1	85.2

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	2.1	7.9	3.0	.4	*	*		13.5	7.7	10.4	11.5	10.7	16.3	14.6	18.9	14.2	14.1
NE	2.5	12.3	6.7	.5	*	.0		21.9	7.4	21.7	20.3	21.6	20.6	22.3	22.6	23.5	21.6
E	1.4	3.7	.6	*	*	.0		5.7	6.2	8.1	8.5	7.5	3.5	3.3	5.0	4.2	5.8
SE	1.4	3.7	.4	.0	.0	.0		5.5	5.9	8.4	10.6	6.0	3.5	2.4	4.0	3.1	8.1
S	1.8	5.4	1.2	*	*	.0		8.5	7.1	12.0	11.5	12.5	5.7	5.1	4.1	5.8	7.2
SW	2.2	9.1	3.2	.3	*	.0		14.8	7.9	14.4	19.8	16.1	16.5	13.4	12.0	13.3	16.7
W	1.9	6.7	2.1	.2	*	.0		11.0	7.3	7.7	7.3	9.3	16.1	15.2	15.4	10.1	9.9
NW	1.7	4.9	.9	.1	*	.0		7.6	6.5	4.5	5.8	5.9	11.1	10.7	9.6	8.3	5.5
VAR	.0	*	.0	.0	.0	.0		*	.4	.0	.0	.0	.0	.0	.0	.1	.0
CALM	11.6							11.6	.0	13.1	4.7	10.4	6.7	12.9	8.6	7.4	11.1
TOT OBS							10401		7.0	1906	707	1727	1031	1826	702	1466	1046
TOT PCT	26.5	33.8	18.1	1.6	.1	*		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	6.0	6.2	1.2	.1	*			13.5	7.3	10.7	13.0	16.0	14.2	
NE	7.8	11.9	2.1	.1	.0			21.9	7.4	21.2	21.3	22.5	22.8	
E	3.6	2.0	.1	*	.0			5.7	6.2	8.1	8.0	3.7	4.8	
SE	3.3	1.9	*	.0	.0			5.5	5.9	8.0	8.2	2.8	5.1	
S	4.5	2.7	.2	*	.0			8.5	7.1	11.9	10.2	4.9	6.4	
SW	6.7	7.0	1.0	.1	*			14.8	7.9	13.3	16.1	13.1	14.5	
W	5.8	4.8	.7	.1	.0			11.0	7.3	7.6	11.4	15.0	9.9	
NW	4.6	2.8	.3	*	.0			7.6	6.5	4.9	7.7	10.4	7.3	
VAR	*	.0	.0	.0	.0			*	.4	.0	.0	.0	*	
CALM	11.6							11.6	.0	11.3	9.1	11.6	13.0	
TOT OBS						10401			7.0	2608	2793	2328	2312	
TOT PCT	34.0	40.0	3.6	.4	*			100.0		100.0	100.0	100.0	100.0	

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	11.3	14.4	53.1	19.5	1.8	.2	.0	7.2	100.0	2608
00009	9.1	16.0	54.6	18.6	1.5	.1	.0	7.2	100.0	2753
12015	11.6	14.6	54.9	17.2	1.7	.0	*	7.0	100.0	2928
18021	15.0	14.3	52.2	16.8	1.6	.2	.0	6.7	100.0	2512
TOT								7.0		10401
PCT	11.6	14.8	53.7	18.1	1.6	.1	*	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.9	2.8	4.7	3.4		3.1
NE	3.1	5.3	10.4	3.8		5.0
E	.8	1.3	2.8	1.2		5.3
SE	.5	.7	2.2	1.3		5.9
S	.8	1.7	4.3	7.3		6.0
SW	1.5	2.3	5.5	4.4		5.6
W	1.3	2.0	4.5	2.9		5.8
NW	1.0	1.2	2.3	1.9		5.2
VAR	.0	.0	.0	.0		.0
CALM	3.3	3.4	4.9	2.4		4.8
TOT OBS					4596	5.3
TOT PCT	14.1	20.7	41.7	23.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

000	150	900	600	1000	2000	3500	5000	6500	8000+	NM <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
*	*	.2	1.2	7.0	.9	.3	*	.1	.0	7.9	
.1	*	.3	1.3	3.1	1.5	.5	.1	*	*	15.4	
*	.0	.1	.5	.7	.5	.2	*	*	*	4.1	
*	*	.2	.2	.7	.4	.2	*	*	*	2.8	
.1	*	.1	.7	1.2	.7	.4	*	*	.1	5.8	
.2	*	.2	1.2	2.0	.8	.4	.2	*	.1	8.6	
.3	*	.1	1.0	1.6	.8	.3	.1	*	.1	6.5	
*	*	.2	.6	.9	.3	.1	.1	*	*	4.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
*	.0	.1	.7	1.4	.7	.2	*	*	.1	10.7	
.8	.7	1.4	7.4	13.7	6.7	2.7	.6	.3	.4	65.8	4558
											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
* OR >6500	.7	.8	.8	.8	.8	.8	.8	.8
* OR >5000	1.3	1.5	1.5	1.5	1.5	1.5	1.5	1.5
* OR >3500	3.4	4.1	4.2	4.2	4.2	4.2	4.2	4.2
* OR >2000	8.6	10.6	10.9	11.0	11.0	11.0	11.0	11.0
* OR >1000	18.6	23.3	24.3	24.6	24.6	24.7	24.7	24.7
* OR >600	22.7	28.6	31.2	31.6	31.8	31.9	31.9	31.9
* OR >300	23.4	30.7	32.5	33.1	33.2	33.3	33.3	33.3
* OR >150	23.6	30.9	32.7	33.3	33.4	33.5	33.5	33.5
* OR >0	23.8	31.3	33.3	33.9	34.1	34.2	34.2	34.2

TOTAL NUMBER OF OBS: 4790

PCT FREQ NM <5/8: 65.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
6.4	11.2	18.3	16.3	12.8	8.0	9.0	7.1	10.2	.6	5270



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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	*	.0	*	*	*	.0	*	*	.0	.0	.1	
	NO PCP	*	*	*	.0	.0	.0	*	*	.0	*	.1	
	TOT %	*	*	*	*	*	.0	*	*	.0	*	.2	
1/2<1	PCP	*	*	*	*	*	*	*	*	.0	.0	.2	
	NO PCP	.0	*	*	.0	*	*	*	.0	.0	*	.1	
	TOT %	*	.1	*	*	*	*	*	*	.0	*	.3	
1<2	PCP	.1	.1	.1	.1	*	.1	.1	*	.0	*	.6	
	NO PCP	*	*	*	.0	*	*	*	*	.0	.0	.2	
	TOT %	.1	.1	.1	.1	.1	.1	.1	.1	.0	*	.7	
2<5	PCP	.2	.2	*	.1	.1	.2	.2	.1	.0	*	1.2	
	NO PCP	.2	.3	.1	.1	.2	.7	.2	.1	.0	.1	1.4	
	TOT %	.4	.6	.1	.1	.2	.9	.4	.3	.0	.1	2.6	
5<10	PCP	.5	.5	.2	.2	.3	.8	.6	.3	.0	.2	3.8	
	NO PCP	3.1	3.8	.8	1.5	1.8	3.3	2.4	1.9	.0	2.9	21.5	
	TOT %	3.6	4.3	1.1	1.7	2.1	4.1	3.1	2.3	.0	3.1	25.4	
10+	PCP	.3	.5	.2	.1	.4	.3	.4	.3	.0	.3	2.8	
	NO PCP	9.1	18.8	4.4	3.5	5.5	8.8	8.8	4.8	*	8.4	68.1	
	TOT %	9.4	17.2	4.5	3.6	5.9	9.2	7.2	5.1	*	8.6	70.8	
TOT OBS		7919											
TOT PCT		13.6	22.3	9.9	5.6	6.4	13.9	10.8	7.7	*	11.9	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	
	4-10	*	.1	*	*	.0	.0	.0	*	.0	*	.2	
	11-21	*	*	*	*	*	*	*	*	.0	*	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	
	TOT %	*	.1	*	*	*	*	*	*	.0	*	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	*	.0	*	*	
	4-10	*	*	*	*	*	*	*	.0	.0	*	.2	
	11-21	.0	*	*	.0	*	*	.0	.0	.0	*	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	
	TOT %	*	.1	*	*	*	*	*	*	.0	*	.3	
1<2	0-3	*	*	*	*	.0	.0	*	*	.0	*	.1	
	4-10	.1	.1	*	*	*	*	*	*	.0	*	.4	
	11-21	.1	*	*	*	*	.1	*	*	.0	*	.3	
	22+	.0	*	.0	.0	.0	*	.0	.0	.0	*	*	
	TOT %	.1	.2	.1	.1	.1	.1	.1	.1	.0	*	.8	
2<5	0-3	*	.1	*	*	*	.1	.1	.1	.0	.1	.5	
	4-10	.3	.4	.1	.1	.2	.2	.2	.2	.0	*	1.7	
	11-21	.2	.3	.1	*	.1	.2	.1	.1	.0	*	1.0	
	22+	*	*	.0	.0	*	*	.0	.0	.0	*	.1	
	TOT %	.6	.8	.2	.2	.3	.5	.4	.3	.0	.1	3.4	
5<10	0-3	.4	.5	.3	.6	.3	.7	.4	.5	.0	3.0	6.9	
	4-10	1.7	2.1	.8	1.0	1.3	2.2	1.7	1.4	.0	*	12.1	
	11-21	1.1	1.7	.1	.2	.4	.9	.7	.2	.0	*	5.1	
	22+	.2	.2	.0	.0	*	.2	.2	.1	.0	*	.8	
	TOT %	3.5	4.1	1.0	1.8	2.1	4.0	3.0	2.2	.0	3.0	24.9	
10+	0-3	1.4	2.0	1.0	.8	1.2	1.0	1.2	1.1	.0	8.8	18.6	
	4-10	5.9	9.5	3.0	2.7	4.0	5.9	4.7	3.3	*	*	39.0	
	11-21	1.8	3.1	.4	.2	.8	2.0	1.2	.8	.0	*	12.1	
	22+	.2	.4	*	.0	*	.1	*	*	.0	*	.7	
	TOT %	9.3	17.0	4.5	3.7	6.0	9.0	7.2	5.0	*	8.8	70.4	
TOT OBS		8444											
TOT PCT		13.7	22.3	5.8	5.7	8.4	13.7	10.7	7.6	*	12.0	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	190 299	300 399	500 599	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.8	.2	2.4	8.5	16.2	6.6	3.1	1.3	.4	.7	40.0	60.0	1379
06009	.4	.3	1.1	7.2	12.7	7.7	2.6	.4	.2	.2	32.8	67.2	1312
12015	.4	.0	.9	5.1	11.1	6.1	2.7	.4	.1	.6	27.5	72.5	1254
18021	1.4	.2	1.0	6.3	11.2	5.4	1.4	.5	.4	.5	28.3	71.7	1135
TOT													9080
PCT	.7	.2	1.4	6.9	12.9	6.5	2.5	.7	.3	.5	32.5	67.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.5	.5	.7	3.3	24.0	71.0	2293
06009	.3	.2	.8	2.5	20.1	76.1	2177
12015	.2	.1	.6	3.5	26.9	68.8	2232
18021	.7	.4	1.5	4.0	26.0	67.8	2063
TOT							8765
PCT	.3	.3	.9	3.3	24.3	70.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET) NH >4/8) BY HOUR

HOUR (GMT)	<150 <500D	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.8	3.9	14.4	28.0	57.6	1309
06009	.4	2.1	10.7	24.2	65.2	1232
12015	.4	1.5	9.0	21.2	69.8	1179
18021	1.5	2.9	12.3	18.6	69.0	1070
TOT						4790
PCT	.8	2.6	11.7	23.3	65.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	*	.1	.0	.0	.0	.1	
90/94	.0	.0	.0	.1	.5	.3	.1	.0	1.1	
85/89	.0	.0	.0	.1	1.6	6.5	3.0	.8	12.1	
80/84	.0	.0	*	*	1.2	20.4	37.4	9.1	68.1	
75/79	.0	.0	.0	.0	.1	1.1	7.6	9.3	18.1	
70/74	.0	.0	.0	.0	.0	*	.1	.4	.5	
TOTAL									4955	100.0
PCT	.0	.0	*	.3	3.5	28.4	48.2	19.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	*	*	.0	.0	*	.0	.0	.0	.0
90/94	.1	.1	*	*	.1	.2	.2	.1	.0	.3
85/89	1.0	1.7	.8	.7	1.3	2.1	1.5	1.0	.0	1.9
80/84	6.3	16.0	4.0	3.1	5.6	9.8	8.0	5.0	.0	8.2
75/79	2.9	4.3	.8	1.2	1.9	2.0	1.4	1.3	*	2.2
70/74	.1	*	.1	*	*	.1	*	*	.0	.2
TOTAL	12.4	22.3	5.7	5.2	8.9	14.1	11.1	7.4	*	12.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	93	88	35	82	74	74	72	81.1	2627
06009	97	91	88	83	78	76	72	82.9	2711
12015	95	86	85	82	78	76	72	81.5	2357
18021	89	84	83	81	77	75	70	80.6	2383
TOT	97	89	86	82	77	75	70	81.6	10478

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.2	1.4	21.1	49.1	28.3	85	1424
06009	.0	.9	9.2	41.2	35.9	12.8	80	1237
12015	.0	.0	2.3	29.0	52.1	16.6	83	1380
18021	.0	.1	1.3	23.3	53.4	22.0	84	1202
TOT	0	15	180	1490	2496	1062	83	5243

PERIOD: (PRIMARY) 1926-1973  
(OVER-ALL) 1857-1973

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	H FOG	WD FOG
11/13	.0	.0	.0	.0	.0	.0	.0	7	.0	.1
9/10	.0	.0	.0	.0	.1	.1	.1	21	.0	.3
7/8	.0	.0	.0	.0	.2	.2	.1	35	.0	.5
6	.0	.0	.0	.0	.2	.2	.0	36	.0	.5
5	.0	.0	.0	.0	.3	.3	.0	95	.0	1.3
4	.0	.0	.1	1.0	1.1	.9	.0	198	.0	2.6
3	.0	.0	.1	.0	.9	.4	.0	143	.0	2.0
2	.0	.0	.3	3.6	1.9	.1	.0	460	.0	5.9
1	.0	.0	.6	3.2	2.1	.0	.0	424	.0	5.9
0	.0	.2	2.5	12.4	2.1	.0	.0	1342	.1	17.1
-1	.0	.1	2.3	9.3	1.2	.0	.0	935	.0	13.0
-2	.0	.3	4.6	14.1	.7	.0	.0	1513	.1	19.6
-3	.0	.1	2.4	6.4	.2	.0	.0	662	.0	9.2
-4	.0	.5	4.8	4.8	.0	.0	.0	768	.0	10.1
-5	.1	.5	3.1	1.4	.1	.0	.0	374	.0	5.0
-6	.0	.4	2.2	.3	.0	.0	.0	217	.0	3.0
-7/-8	.0	.3	1.8	.3	.0	.0	.0	216	.0	2.9
-9/-10	.0	.3	.3	.0	.0	.0	.0	46	.0	.8
-11/-13	.0	.1	.0	.0	.0	.0	.0	14	.0	.2
TOTAL								7506		
PCT	.2	3.5	25.1	57.8	11.3	1.9	.2	100.0	.3	99.7

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.0	1.1	.1	.0	.0	.0	2.2	1.1	1.1	.0	.0	.0	.0	2.2
1-2	.4	3.2	.8	.0	.0	.0	4.4	1.5	5.7	1.9	.0	.0	.0	9.0
3-4	.0	2.3	1.7	.1	.0	.0	4.1	.1	2.6	3.5	.1	.0	.0	6.4
5-6	.0	.3	.8	.1	.0	.0	1.2	.0	.6	2.3	.4	.0	.0	3.4
7	.0	.0	.9	.0	.0	.0	.3	.0	.2	.9	.5	.0	.0	1.6
8-9	.0	.1	.0	.0	.0	.0	.1	.0	.0	.1	.0	.1	.0	.2
10-11	.0	.0	.1	.1	.0	.0	.3	.0	.1	.3	.1	.0	.0	.5
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.4	7.0	3.8	.5	.3	.0	12.7	2.7	10.3	9.2	1.1	.1	.0	23.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.1	.6	.0	.0	.0	.0	1.7	.5	.4	.0	.0	.0	.0	.9
1-2	.5	2.0	.3	.0	.0	.0	2.8	.3	1.8	.2	.0	.0	.0	2.5
3-4	.1	.4	.3	.0	.0	.0	.8	.0	.3	.1	.0	.0	.0	.6
5-6	.0	.2	.2	.0	.0	.0	.5	.0	.1	.1	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.7	3.2	1.0	.0	.0	.0	5.9	1.0	2.9	.4	.0	.0	.0	4.2

PERIOD: (OVER-ALL) 1963-1973

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.7	.5	.0	.0	.0	.0		1.2	.6	.8	.1	.0	.0	.0		1.5
1-2	.5	4.2	.8	.0	.0	.0		5.5	.3	5.2	1.8	.0	.0	.0		7.2
3-4	.1	1.2	.5	.0	.0	.0		1.8	.7	2.5	1.2	.1	.0	.0		4.0
5-6	.0	.1	.2	.0	.0	.0		.3	.0	.1	1.3	.1	.0	.0		1.4
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.4	.1	.0	.0		.5
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.1	.0	.0	.0		.1
10-11	.0	.1	.0	.0	.0	.0		.1	.0	.0	.1	.0	.0	.0		.1
12	.0	.0	.0	.0	.0	.0		.1	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	1.3	6.1	1.6	.0	.0	.0		9.0	1.1	8.6	4.9	.2	.0	.0		14.8

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.9	1.2	.1	.0	.0	.0		2.2	.7	.5	.0	.0	.0	.0		1.2	
1-2	.3	4.8	.8	.0	.0	.0		5.9	.4	2.0	.2	.0	.0	.0		2.7	
3-4	.1	1.5	1.0	.0	.0	.0		2.5	.0	.6	.5	.0	.0	.0		1.1	
5-6	.0	.3	.3	.0	.0	.0		.6	.0	.1	.3	.0	.0	.0		.4	
7	.0	.1	.3	.1	.0	.0		.5	.0	.0	.1	.0	.0	.0		.1	
8-9	.0	.0	.2	.1	.0	.0		.3	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.1	.0	.0	.0		.1	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	1.3	8.0	2.7	.2	.0	.0		12.1	1.2	3.2	1.1	.0	.0	.0		5.5	87.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	20.0	6.1	.3	.0	.0	.0	26.4	
1-2	4.7	28.4	6.6	.0	.0	.0	39.7	
3-4	.5	11.6	8.7	.3	.0	.0	21.1	
5-6	.0	1.8	5.4	.6	.0	.0	7.8	
7	.0	.3	2.0	.6	.0	.0	2.9	
8-9	.0	.0	.4	.1	.1	.0	.7	
10-11	.0	.2	.6	.2	.0	.0	1.0	
12	.0	.1	.0	.0	.0	.0	.2	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.1	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	25.3	48.5	24.2	5.0	.1	.0	100.0	1819

PERIOD: (OVER-ALL) 1940-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	8.1	24.8	14.0	4.2	1.1	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1887	2
6-7	.1	3.2	7.6	5.7	2.2	.7	.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	779	4
8-9	.0	.3	1.0	2.2	1.6	.7	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	257	6
10-11	.0	.1	.3	.3	.3	.2	.2	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	69	7
12-13	.0	.0	.2	.1	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	6
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	15
INDET	13.7	2.9	1.1	.5	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	627	1
TOTAL PCT	21.9	31.2	24.2	13.0	9.4	2.7	1.3	.8	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	3638	3

PERIOD: (PRIMARY) 1926-1973  
(COVER-ALL) 1857-1973

TABLE 20

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PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.0	2	.0
89/90	.1	.1	.1	.8	1.4	2.0	1.2	.2	.1	.4	.1	.2	50	.5
87/88	.4	.3	1.8	3.7	11.2	8.3	4.6	4.2	3.2	2.6	1.9	1.0	317	3.2
85/86	1.4	1.2	3.6	28.0	44.4	35.5	34.7	31.8	24.3	27.0	18.7	7.0	1911	19.4
83/84	13.1	8.3	18.6	40.7	33.1	31.4	35.3	45.3	50.6	48.6	39.6	28.7	3060	31.0
81/82	53.1	48.3	54.2	20.1	7.1	12.5	14.4	16.3	17.4	19.8	35.9	47.4	3119	31.6
79/80	23.8	29.6	17.4	5.3	1.8	9.2	8.7	1.3	2.0	.9	3.3	12.5	1079	10.9
77/78	5.0	8.6	3.6	1.3	.8	.8	.3	.8	.1	.8	.3	2.4	239	2.4
75/76	1.9	2.3	.5	.2	.0	.1	.8	.0	.3	.0	.0	.4	63	.6
73/74	.4	.6	.1	.0	.0	.0	.0	.0	.0	.0	.1	.0	13	.1
71/72	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.1
69/70	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.4	.0
67/68	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	.0
65/66	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
63/64	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
61/62	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
59/60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
57/58	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
55/56	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
53/54	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
51/52	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
49/50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
25/26	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
23/24	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
21/22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
19/20	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
17/18	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
15/16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
13/14	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
11/12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
9/10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
7/8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
5/6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
3/4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
1/2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	1143	496	827	622	658	791	723	620	696	794	987	1002	9859	100.0
MEAN	80.9	80.5	81.6	83.6	84.7	84.0	83.7	83.9	83.7	83.7	83.1	82.0	82.9	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

HR	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1011	1010	1010	1009	1010	1010	1010	1009	1010	981
FEB	1011	1010	1010	1009	1009	1010	1010	1010	1010	822
MAR	1011	1010	1010	1008	1009	1010	1010	1009	1010	704
APR	1010	1009	1009	1007	1009	1010	1009	1009	1009	496
MAY	1010	1009	1008	1007	1008	1010	1009	1008	1009	292
JUN	1010	1010	1009	1007	1009	1009	1009	1009	1009	377
JUL	1009	1010	1009	1008	1008	1010	1009	1009	1009	349
AUG	1010	1009	1009	1007	1009	1010	1009	1008	1009	514
SEP	1010	1010	1009	1008	1009	1010	1009	1009	1009	650
OCT	1010	1010	1009	1008	1009	1009	1010	1009	1010	701
NOV	1010	1010	1009	1008	1010	1009	1010	1009	1010	923
DEC	1010	1010	1009	1009	1010	1010	1009	1009	1010	832
ANN	1010	1010	1009	1008	1009	1010	1009	1009	1009	8386
TBS	1596	547	1405	699	1528	599	1258	714		

PERCENTILES

MC	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	1004	1004	1006	1009	1010	1011	1014	1015	1017
FEB	1004	1004	1006	1008	1010	1011	1014	1015	1016
MAR	1004	1004	1006	1008	1010	1011	1013	1014	1015
APR	1004	1004	1006	1008	1009	1010	1012	1014	1015
MAY	1003	1004	1005	1007	1009	1010	1012	1013	1014
JUN	1003	1004	1005	1007	1009	1010	1012	1012	1013
JUL	1004	1005	1006	1007	1009	1010	1012	1012	1013
AUG	1004	1005	1006	1007	1009	1010	1012	1013	1014
SEP	1004	1006	1007	1009	1009	1011	1012	1013	1014
OCT	1003	1004	1005	1007	1010	1011	1012	1013	1015
NOV	1004	1005	1006	1008	1010	1011	1013	1014	1015
DEC	1004	1005	1006	1008	1010	1011	1014	1015	1016

Best Available Copy

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Best Available Copy

